R. White ad viv. sculp.
Effigies Edvardi Hatton.
Ætat. Suæ 32. 1696.

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THE

Merchant's Magazine:

OR,

Trades-Man's Treasury.

CONTAINING,

I. **Arithmetick** in Whole *Numbers* and *Fractions*, Vulgar and Decimal; with the Reason and Demonstration of each Rule: Adorn'd with curious Copper-Cutts of the chief Tables and Titles.

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THE SECOND EDITION.

To which is Added in this Impression (besides many Additions in the former Work) Five whole Chapters; Viz.

I. **Marine** concerning *Bills of Exchange*, *Factors* and *Factorage*: The Law concerning *Brokers*, &c.

II. The **Post of Letters** to and from Foreign Countries; and the Days when Mails are sent to, and due from those Countries.

III. An Account of the **Commodities** produced by all Countries; Their chief Towns of Trade, and Bigness of the Country compared with *England*.

IV. A *Merchant* or *Trader's* **Dictionary**, Explaining the most Difficult Terms used in Trade.

V. **Presidents** of Merchants Writings; as, *Bills of Lading*, *Invoyces*, *Bills of Exchange*, *Letters of Credit*, *Charter-Parties*, &c. With many other Things not Extant before, as by the *Table of Contents* appears.

Accommodated chiefly to the Practice of *Merchants* and *Trades-men*: But is likewise usefull for Schools, Bankers, Diversion of Gentlemen, Business of Mechanicks, and Officers of the King's Custom and Excise.

By *E. HATTON*, Gent.

LONDON, Printed by *J. Heptinstall*, for Chr. Conyngsby, at the *Golden Turk's Head* against St. *Dunstan's*-Church in *Fleetstreet*, 1697.

BIBL
LONDON
UNIV

TO

Henry Spelman

OF

WICKMERE,

IN THE

County of *NORFOLK*, Esq;

Edward Hatton,

As an Acknowledgment of Sundry Favours,

Humbly Dedicateth

This TREATISE.

Licenſed,

Nov. 30.
1694.

Edw. Cook.

The Epiſtle to the Reader.

Courteous Reader,

THE First *Impreſſion of this Treatiſe (though not ſo perfect in every reſpect as I could have wiſhed, as being Compoſed, Printed and Publiſhed with too much Precipitation,) having however for its uſefulneſs and familiarity found Acceptation in the World, exceeding my Expectation: I thought my ſelf obliged in point of Gratitude to endeavour in this* Second, *not only to rectifie and compleat what was amiſs or imperfect in the former, but alſo to ſtudy how (according to my utmoſt ability,) I might make it a Book farther uſefull to the Publick. And in order thereto, I have made many conſiderable Additions; as, in* Arithmetick in Whole Numbers, *I have added a Table of the Latin or Literal Numbers; ſeveral Tables in Addition, and a Diſcourſe of the Uſe of thoſe Tables: In* Diviſion, *a new Demonſtration; And the manner of Reducing any Summ of Foreign Coin into Engliſh, for the ready Caſting up Bills of Exchange. In* Vulgar Fractions, *I have added the Reaſon of all thoſe myſterious Rules given for Reducing, Adding, Subſtracting, Multiplying and Dividing thereof; and have done the like in Decimals, ſhewing how the Nature of them agrees with the Vulgar. In* Merchants Accompts, *I have added the Reaſon of the moſt abſtruſe Rules given for the brief working of Queſtions in* Practice; *And a more eaſie and (in many Caſes) conciſe Method of finding the Tare of any Commodity: And in* Exchange, *I have added ſeveral uſefull Tables of Coin and Weight, with the manner of Calculating the* Par *of Foreign Coin by the Weight and Fineneſs; as alſo an Explanation of the Tables of the Courſe of Exchange, and diverſity of Proportions between Gold and Silver, Fine or Standard. In* Book-keeping, *I have added Examples of a Caſh-Book, Books of Houſhold-Expences, and Charges of Merchandize, and ſhewed how the latter are Poſted into the former, and thence into the* Ledger. *Where, as alſo in the* Journal, *I have added References to the Folio's where every Parcel*

of Goods or other matter is placed, both Debtor and Creditor in the Ledger; *and likewiſe a better and more Natural way of keeping an Alphabet of Names. As to Maxims for Drawing and Accepting Bills of Exchange, I have made them more Copious and Methodical; And have added ſeveral concerning Factors, as may be ſeen in* Chap. 11. *And I have likewiſe added* Chap. 12. *which ſhews what Commodities are produced by all Countries in the World, with the Names of their chief Towns of Trade, and the Magnitude of ſuch Country compared with* England, *according to the beſt Account I could learn by Reading, Diſcourſe, or Calculation. And I have inſerted (from* Keeble's *Statutes at large) the Law concerning the Poſt and Poſtage of Foreign Letters, (as alſo that concerning Intereſt of Coin and Bankrupts in other places of this Book;) and have alſo ſhewed when Letters may be ſent to, and Mails are due from thoſe Countries. And in* Chap 14. *I have Explained all the myſterious Terms or Words I could think on, that relate to Merchandizing; many of which, I am ſure, are not to be found in any Expoſitor extant. And laſtly, I have added the greateſt variety of Merchants Preſidents in the beſt and moſt practical Method that are any-where (to my knowledge) exhibited; which will be not only uſefull for Practice to be tranſcribed upon occaſion, but alſo will afford much light into the Nature of that part of Trade which they relate to.*

And thus I have given the Reader a Summary Account of the moſt material Additions, though there are very many which I have here omitted; and I hope the whole will prove not only pleaſant, but profitable, eſpecially to the Younger ſort of moſt Profeſſions, and more particularly to the Merchant, for the Meridian of whoſe Province it was chiefly Calculated; well knowing, that whatever conduceth to the facile and ſpeedy carrying on of Trade, does alſo contribute to the Augmentation of the Bulk thereof, and conſequently to the Riches and Grandure of the Nation: For as the ingenious and accompliſh'd Merchant, Sir Joſiah Child, *ſays,* The Greatneſs of this Kingdom depends on Foreign Trade; and therefore the Intereſt of Trade not unbecoming

coming Perſons of the higheſt Rank. *'Tis obſervable of the Dutch*, That they Erect the moſt Noble Tombs and Statues to the Memory of their famous Sea-Commanders; *which is a certain Indication of their being ſenſible of the vaſt Advantages that accrue to them by their Shipping; and I heartily wiſh we in this Nation were not leſs apprehenſive thereof, we ſhould not ſee ſo many Eminent perſons, of competent Fortunes, ſquander the ſame away, becauſe they know not how to employ or improve them, and that cauſed by their Parents looking on their Extract to be above the Sphere of Commerce. Indeed the ill practices of ſome Traders (eſpecially the meaner ſort of Retailers) ſuch as Lying and Cheating are too great Cauſes of bringing an Odium on the Name of* Trades-men *by Perſons of Honour and Gentility: But if it be conſidered on the other hand, that ſuch Immoralities are not Eſſential to Trade, and that there are many (and I hope the greater part) that may and do grow Rich by Traffick, who make Juſtice their Rule, and their Word a ſtrict Obligation; then ſuch Objections againſt Trades-men will ſeem vain and frivolous: But 'tis the Foreign Trade or Merchandizing that I would chiefly here perſwade ſome of our Perſons of Quality to have a due Eſteem of: Other Arts or Myſteries they uſually value, according to the Profoundneſs and Excellency of their Nature, or elſe to the Advantages uſually attending them; for both which, the Employment of a Merchant is as valuable as that of a Lawyer, Phyſician, or any other Profeſſion whatſoever: For if the neceſſary Perfections and Qualities of a truly accompliſh'd Merchant be conſidered with reſpect to his Natural, Moral, and acquired Parts, it will place him (in the Opinion of the Judicious) far above Contempt.*

For ſuch a Merchant, as to his Natural parts, muſt have a quick Apprehenſion, a ſolid Judgment, and a ſound Conſtitution of Body; his Apprehenſion to capacitate him for the underſtanding all that great Myſtery of his Honourable Calling; his Judgment to ſecure him from being eaſily deceived and impoſed on by thoſe with whom he has Dealings; and a good Conſtitution and ſoundneſs of Body, that he may do variety of Buſineſs in different places in a ſhort time.

His

His Morals *muſt likewiſe be conſpicuouſly good; his* Fortitude *ſuch as gives him an undaunted courageous Spirit to adventure his Eſtate at Sea, notwithſtanding all Dangers; and alſo to correſpond and diſcourſe not only with Foreigners and Barbarians, but with Princes and States-men; and (in ſhort) to inſiſt on his Rights from all Perſons in all places whatſoever. And as his* Fortitude *muſt be great, ſo his* Prudence *ſets Bounds thereto, that it neither Degenerates into Impudence nor Fool-hardineſs; for 'tis by this that a juſt Ballance and due Poize is kept in all his Actions; this is the Pole-ſtar that directs him how to ſteer in his many novel and momental Concerns; by this he firſt fixes on the moſt probable and ſecure way of enriching himſelf, and then proſecutes his Deſigns by the moſt proper Methods; This teaches him how to manage all his Domeſtick concerns according to the various Mutations of things abroad; aud 'tis his Prudence, whereby his Importations, Exportations, Buying, Selling, Exchanging by Bills, Bartering, Accompts; and all his Dealings are ſo ordered and carried on, as tend not only to his own, but the Intereſt of Trade in general. And as his* Prudence *makes him act wiſely, ſo his* Juſtice *makes him act honeſtly: This reſtrains him from affirming a Commodity to be good, when 'tis bad; or Weight and Meaſure when 'tis deficient; or if he does ſo through ignorance of ſuch defects, he ſcruples not to make a proportionable abatement. This alſo makes him punctual to his Word in all his Affairs, which procures and encreaſeth his Credit; his Credit augmenteth the Bulk of his Trade, and that makes him grow Rich. This Merchant is not only accounted an honeſt Man by his Neighbours (which is ſufficient for other Men,) for his Character is as well known in Foreign Parts, as his Name or the Commodities he deals in; and by acquiring the Epithete of a* Juſt *Man, he can carry on as great a Trade as he that wants that Name can do with treble his Stock. And if we conſider his Temperance, Gravity, and Affability, they are ſuch as improve his ſpacious Capacity and Intellects; the firſt makes him able to perform the moſt intricate part of his Buſineſs at any time, whenever it occurrs; the ſecond makes him ſuited to, and become his high and*

honourable

honourable Employment; and the third makes him of an eaſie Acceſs, gains him Love and Affection, and makes all that know him delight to deal with him.

And as this Merchant is thus Qualified with reſpect to his Natural Parts and Morals, ſo his Acquired parts *are ſuch as fit him for the practice of that great and copious Undertaking to perform it with eaſe and ſatisfaction, and make him a fit Correſpondent or Companion for the moſt Noble or Judicious. To inſtance in ſome of the neceſſary Accompliſhments which properly denominate him a Merchant: He underſtands not only the Language and Cuſtoms (with reſpect to Trade) of the place where he reſides, but alſo thoſe of ſuch Parts of the World where he has any conſiderable Traffick: He writes a fair and legible Hand, and the Matter in a good Style, for the ſatisfaction not only of Foreigners, who may not well underſtand his Dialect, but of Judges and Magiſtrates (in caſe of Conteſt) who may be unacquainted with the Myſteries of Merchantile Concerns: He is likewiſe well verſed in Accompts, whereby he can do his buſineſs the ſhorteſt and ſureſt way. And in* Book-keeping, *by Debtor and Creditor, which informs him with Eaſe and Certainty how Matters ſtand at any time with reſpect to* Men, Money *or* Merchandize, *and to Profit and Loſs, whether he goes forward or backward, grows Rich or Poor: He is likewiſe a good Proficient in Mathematical Learning, as in* Geometry, *by which he knows how to meaſure Board and Timber or other things relating to this Trade, as Gauging Wine and Oyl-Veſſels,* &c. *In Navigation, that he may know the Diſtance and Rombs leading to the moſt noted Ports or Places of Trade which are of uſe to him in Diſcourſe and Agreements with Maſters of Ships,* &c. *In* Geography *thereby to know the Situation of the moſt remarkable places of Traffick, what Commodities they produce, and alſo the Cuſtomes, Subſidies and Impoſitions paid upon Exportation or Importation, their manner of Buying and Selling, with the value of their Coins, Weights and Meaſures. Add to all this the clear Notions he has of the great Myſteries of Exchange; the Reaſon of its Riſing and Falling, the Laws and Cuſtoms uſed*

in Drawing, Accepting, Endorſing, and Proteſting Bills of Exchange, and the Quantity made up for Sale, Quality and Uſe of the moſt material and beſt Commodities, together with the Policy of Trade, as the Intereſt of all Countries, with reſpect to all Commodities, i. e. *which are moſt proper for, or are to be prohibited Exportation or Importation in this or that Country, and many other things; which ſhould I particularize, it would ſwell this Epiſtle beyond a due proportion to the ſubſequent Treatiſe; all which a compleat Merchant muſt neceſſarily be acquainted with, in order to the Qualifying him for the judicious Performance of his own Buſineſs, and that of his Country in a Court of Merchants. So that we may ſafely conclude with the fore-cited Ingenious Author, That* of this ſtudy, as well as others, it may be ſaid, There is Infinity in it, none, though of the largeſt Intellects and Experience, being able to fathom its utmoſt Depth.

And now, Courteous Reader, though the following Treatiſe will fall ſhort of Qualifying thee as above-mentioned, yet I doubt not, ſince the former Impreſſion hath found ſuch favourable Reception, but this will do the like; And if the Heads aboveſaid may (by being here barely mentioned) Induce the Pen of ſome more able Proficient to furniſh us with ſomething Correſponding thereto, it would, no doubt, be an Undertaking extreamly tending to the Honour and Advantage of the Trading-part of this Kingdom; who (if this Edition finds due encouragement) may expect hereafter to be accommodated with ſuch other Additions, as may render this Treatiſe of ſuch practical Uſe, as will leave no room for Exception: In the mean time, I muſt aſſure the Reader, that I have proceeded in Compoſing the following Pages in the moſt Familiar, Rational and Copious Method that I am at preſent capable of, having endeavoured throughout the whole, to prevent Errour, and to Explain thoſe things moſt clearly, which others have either but tranſiently touched, or wholly omitted; and therefore doubt not thy kind Acceptance of an Offering, ſo ſincerely intending thy Proficiency, by thy

Hearty Well-wiſher in the Progreſs of Study.

E. Hatton.

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An Advertiſement concerning the Contents or Index to this Book.

That Chapter 14. (which is the Dictionary) is not included in the Index above; for the Words in that Chapter running in Alphabetical order are Indexes to themſelves, and may ſooner be found there than elſewhere. But if the Reader look for a word there, and cannot find it, let him look in the Index, and if it is in the Book he will there not miſs of it.

Numeration

Teacheth to read or write any Number set downe or named

The Table

						1	Vnites	1										
					2	1	Tenns	1	2									
				3	2	1	Hundreds	1	2	3								
			4	3	2	1	Thousands	1	2	3	4							
		5	4	3	2	1	XThousands	1	2	3	4	5						
	6	5	4	3	2	1	CThousands	1	2	3	4	5	6					
7	6	5	4	3	2	1	Millions	1	2	3	4	5	6	7				
8	7	6	5	4	3	2	1	XMillions	1	2	3	4	5	6	7	8		
9	8	7	6	5	4	3	2	1	CMillions	1	2	3	4	5	6	7	8	9

Notation of Whole Numbers.

IN Order to the Right underſtanding how any Number is to be read or written, there are theſe Four Things to be conſidered:

1. The Characters by which all Numbers are expreſſed.
2. The Species or Kinds of Numbers.
3. The Order or Place: And,
4. The Multitude or Value ſignified by any Number.

Firſt, The Characters by which all Numbers (how great ſoever) are expreſſed in Writing, are theſe Ten: *Viz.*

1, 2, 3, 4, 5, 6, 7, 8, 9, and (o) Cypher.

Secondly, The Species or Kinds of Numbers are Three: *Viz.*

Firſt, Digits.
Second, Articles.
Third, Mixt Numbers.

1. A Digit is any of the Nine fore-mentioned Figures ſingly expreſſed: *Viz.* 1, 2, 3, 4, 5, 6, 7, 8, 9; which poſſeſs but One Degree or Place.
2. An Article is any of the Nine Digits, with a Cypher or Cyphers, placed to the Right-hand: As, 10, 100, 300, 5000, 6000, *&c.*
3. A Mixt Number is compoſed of Digits, or Cyphers and Digits promiſcuouſly placed together: As, 12, 24, 96, 112, 102, 1769, *&c.*

Thirdly, The Order of the Places of Numbers is reckoned from the Right-hand, toward the Left; as in the Table foregoing; Toward the Left-hand, 1 is in the Firſt Place, 2 in the Second, 3 in the Third, *&c.* But the Order of Reading Numbers is from the Left-hand, toward the Right, as ſhall be ſhewed by and by.

The Denomination of the Places are reckoned as followeth, and as in the foregoing Table.

The Order of Places.	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
The Denomination of the Places.	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9
	C *Millions of Millions*, &c.	X *Millions of Millions.*	*Millions of Millions.*	C *Thousands of Millions.*	X *of Thousands of Millions.*	*Thousands of Millions.*	C *Millions.*	X *Millions.*	*Millions.*	C *Thousands.*	X *Thousands.*	*Thousands.*	*Hundreds.*	*Tens.*	*Units.*

Fourthly, Having premiſed this, it will be Eaſie to Read any Number, obſerving only theſe Two Things: *Viz.*

1. The Place any Digit poſſeſſeth.
2. The Value of that Digit.

Firſt, By the preceding Table it is plain; That the Firſt place, toward the Right-hand, is the place of Units; the Second, the place of Tens; the Third, the place of Hundreds, *&c.*

Second,

Second, Therefore ſuppoſe the Digit 9 ſtands in the Units place, the Value of it is 9; that is, 9 Units: If it ſtands in the Second place, it is 9 Tens; that is, Ninety: If in the Third, or Hundreds place, 'tis 9 Hundred, *&c.* So we will ſuppoſe that the Digit 7 ſtands in the Fifteenth place, which (by the foregoing Table) is Hundreds of Millions of Millions; and the Value of that Digit, poſſeſſing that place, being (7:) Admitting therefore, that all the places toward the Right-hand of the ſaid (7) were ſupplied by Cyphers, the Value of the Number would be Seven Hundred Millions of Millions; And, in like manner, the 15 Figures in the foregoing Table are thus read:

Seven Hundred Sixty Five Millions of Millions,
Four Hundred Thirty Two Thouſand Millions,
One Hundred Twenty Three Millions,
Four Hundred Fifty Six Thouſand,
Seven Hundred Eighty Nine.

And by the ſame Rules are all other Numbers expreſſed: Where Note, That any of the places is Ten times the Value of the place next it, toward the Right-hand; As, 1111111111, is 1000000000, 100000000, 10000000, 1000000, 100000, 10000, 1000, 100; 10, 1; That is, One Thouſand Millions, is Ten times One Hundred Millions, which is Ten times Ten Millions, which is Ten times One Million, which is Ten times One Hundred Thouſand, which is Ten times Ten Thouſand, which is Ten times One Thouſand, which is Ten times One Hundred, which is Ten times Ten, which is Ten times One; and the whole Number being read, is One Thouſand One Hundred and Eleven Millions, One Hundred and Eleven Thouſand, One Hundred and Eleven.

The Value of the Latin, or Literal Numbers, *are as follows.*

I	1	XX	20	CCC	300
II	2	XXX	30	CCCC	400
III	3	XL	40	D	500
IIII or IV	4	L	50	DC	600
V	5	LX	60	DCC	700
VI	6	LXX	70	DCCC	800
VII	7	LXXX	80	DCCCC or CM	900
VIII	8	XC	90	M	1000
IX	9	C	100	MDCXCVII	1697
X	10	CC	200		
XI	11				

Addi-

Addition Teacheth to add sev.l sums togeather to make them one Total

Pounds	Yards	Gallons	Quarts
1270	2734	3546	2795
1021	3946	5737	1501
2370	6542	7845	7160
8426	5763	6721	5072
5603	9708	9654	8540
7206	1246	4060	3026
4570	2090	7241	1867
3872	3427	5426	9742
2106	7602	3213	6381
7285	9841	9762	7690
1707	1056	2187	3786
2834	5407	8615	4502
Total			
Proof			

ADdition is either Simple or Compound.

Firſt, Simple Addition is when Numbers are to be added that have but one Name or Denomination, as Pounds to Pounds, Feet to Feet, *&c.*

Secondly, Compound Addition is when Numbers of divers Denominations are added together; as, Pounds, Ounces, and Drams, to Pounds, Ounces, *&c.* in both which Caſes, theſe two Rules are to be conſidered.

The *Firſt* is for the right placing the Numbers to be added.
The *Second* is for the adding together thoſe Numbers after they are ſo placed.

1. *The Rule for placing the Numbers that are to be added.*

Obſerve to write the Units place of all your lower Numbers, under the like place of the Number above; Tens place under Tens, Hundreds under Hundreds, *&c.* (as in the Example foregoing, and thoſe that follow:) And if the Numbers to be added are of divers Denominations, you are to place all the lower Numbers under thoſe of the ſame Denomination above; as if you add 17*s.* to 2*l.* 7*s.* you muſt place the Numbers thus:

l.	*s.*
2:	07.
0:	17.

2. *The Rule for adding Numbers of one Name together, (let the Denomination be what it will,) is:*

Summ up every Series or lineal Row of Figures, beginning at the undermoſt Figure toward the Right-hand, and place the Digit above Ten or Tens in that firſt Rank under the Line as followeth, and carry the ſaid Ten or Tens to the next Rank toward the Left-hand, calling them ſo many Units, (for they are no more of that next Rank) and add all the Reſt of the Ranks as you have done the Firſt: but if there is nothing above even Tens when you have added any Rank together,

together, then place a Cypher under that Rank, proceeding to carry the Tens, as is before directed: As in the following Example.

		l.
Admit I have Owing to me for	Holland-Cloth	3794
	Thread	896
	Cambrick	6285
	Latten Wyre	3745
	Sugar	2392
	Nutmegs	3058
	Total	20170

To know what Summ I am Creditor by, or what is owing me in all, I ſumm up the Particulars, beginning with 8 at the Angle, toward the Right-hand of the lowermoſt Line, as was before directed; ſaying, 8 and 2 is 10, and 5 is 15, and 5 is 20, and 6 is 26, and 4 is 30: put a Cypher under the Line, and carry 3 to the next Rank, toward the Left-hand; ſaying, 3 and 5 is 8, and 9 is 17, and 4 is 21, and 8 is 29, and 9 is 38, and 9 is 47: put the 7 under the Line, and carry 4 to the next Rank; ſaying, 4 and 3 is 7, and 7 is 14, and 2 is 16, and 8 is 24, and 7 is 31: put the 1 under the Line, and carry the 3 to the next Rank; ſaying, 3 and 3 is 6, and 2 is 8, and 3 is a 11, and 6 is 17, and 3 is 20: which put all down, becauſe you have no more Ranks; ſo will you find the Total to be 20170 *l.* And after the like Manner are any other Numbers of one Denomination added.

§. 2. *For adding Numbers of divers Denominations together, Obſerve this Rule:*

Having the Numbers placed, as is before directed, and as in the Examples following; Conſider how many Units, of the leaſt Denomination in the Numbers given to be added, make a Unit of the next ſuperior Denomination; and how many Units ſoever you find of the next greater Denomination contained in the whole Rank, or Series, of the next leſſer Denomination, ſo many muſt you carry to the ſaid Rank of greater Denomination: And if any thing remain over and above a Unit or Units of the next higher Denomination, ſuch Overplus is to be placed under the Line.

Addition of Money

d	s
12	1
24	2
36	3
48	4
60	5
72	6
84	7
96	8
108	9
120	10
132	11
144	12

li	s	d
270	16	08 ½
954	15	10
106	01	11 ¼
378	10	09
452	19	00 ¾
670	12	07
201	00	06 ½
815	01	05
720	17	04 ¼
147	18	03
706	14	02 ¾
908	03	10

li	s	d
397	17	10 ¼
254	10	07
632	15	11
197	16	02 ½
540	17	06
325	19	08
697	03	00
402	00	05 ¾
354	04	03
976	14	09
214	11	01 ½
107	13	04

Total

Proof

To inſtance in the foregoing Example of Pounds, Shllings and Pence, toward the Left-hand: Where note, by the way, That

¼ is one Farthing, or a Quarter of any thing.
½ is one Half-penny, or two Quarters of any thing.
¾ is three Farthings, or three Quarters of any thing.

So in the Example aforeſaid, 3 Farthings and 1 is 4, and 2 is 6, and 3 is 9, and 1 is 10, and 2 is 12 Farthings, or 3 Pence: which carry to the Pence; ſaying, 3 Pence and 10 Pence is 13 Pence, and 2 is 15, and 3 is 18, and 4 is 22, and 5 is 27, and 6 is 33, and 7 is 40, and 9 is 49, and 11 is 60, and 10 is 70, and 8 is 78 Pence; that is, 6*s.* 6*d.* (as you may ſee by the Table of Pence on Page 1 of this Chapter:) Put the 6*d.* under the Line, and carry the 6*s.* to the ſhillings; ſaying, 6 and 3 is 9, and 4 (taking but Units place of the ſhillings) is 13, and 8 is 21, and 7 is 28, and 1 is 29, and 2 is 31, and 9 is 40, and 1 is 41, and 5 is 46, and 6 is 52: put the 2 ſhillings under the Line, and carry the 5 to the Tens place of ſhillings; ſaying, 5 and 8 (Ten ſhillings) is 13: put the odd Ten ſhillings under the Line, and carry 12 Ten ſhillings to the pound, calling them 6 pounds (by taking half of them,) ſaying, 6 and 8 is 14, and ſo forward, as in the laſt Example of one Denomination; ſo you will find the Summ to be 6333*l.* 12*s.* 6*d.* By the ſame Rule and Method may you find the Total of any other Number of Pounds, Shillings, and Pence: But,

Note, that becauſe in Quarters of Hundreds, Ounces, *&c.* the Difficulty of proceeding in that Method would be great; therefore your beſt way will be when you add Ounces in Averdupoize-weight, *&c.* to make a point or prick at every 16; ſo will you avoid charging the Memory, and may with eaſe carry the ſaid points or pricks to the pounds; each point being 1 pound; a few Examples will make it plain, which you have after the Tables.

§. 3. *Of Engliſh Coin, &c.*

TABLE 1. *Of Engliſh Coin.*

4	Farthings is--1	Penny.	In 1 Pound Sterling, are 960 Farthings.
12	Pence ——— 1	Shilling.	240 Pence.
20	Shillings ——— 1	Pound.	80, 3 Pences.
			60 Groats.

TABLE 2. *Of Troy-Weight.*

32	Natural Grains of Wheat, or 24 Artificial Grains —	1 Penny-weight.	In a Pound Troy, are 5760 Grains.
20	Penny-weight--- 1	Ounce.	240 P-weight.
12	Ounces ——— 1	Pound.	12 Ounces.

TABLE 3. *Of Averdupoize-Weight.*

4	Qrs of a Dram---1	Dram.	In 1 Ton, are 573440 Drams.
16	Drams ——— 1	Ounce.	35840 Ounces.
16	Ounces ——— 1	Pound. *l.*	2240 Pounds.
28	Pounds ——— 1	Qr of 112 the *C.*	20 Hundred
20	Hundred ——— 1	Ton.	of 112 *l.* to the
19½	Hundred ——— 1	Ton of Lead.	Hundred.

Note, That 56 *l.* is one Half, and 84 *l.* three Quarters of 112 *l.* which is the Merchant's Hundred for moſt Commodities.

TABLE 4. *Of Apothecaries Weight.*

20	Grains---- 1	Scruple, marked--℈.	In a Pound Troy, are 5760 Grains.
3	Scruples-- 1	Dram ——— ʒ.	288 Scruples.
8	Drams--- 1	Ounce ——— ℥.	96 Drams.
12	Ounces--- 1	Pound ——— lb.	12 Ounces.

T A-

TABLE 5. *Of Sheeps Wooll-Weight.*

7 Pound — 1 Clove.
2 Cloves — 1 Stone.
2 Stone — 1 Tod.
6½ Tod — 1 Wey.
2 Weys — 1 Sack.
12 Sacks — 1 Laſt.

In a Laſt of Wooll, are,
12 Sacks.
24 Weys.
156 Tod.
312 Stone.
624 Cloves.
4368 Pounds.

According to the Standard of the Exchequer by the 31 *Edw.* 3. *Ch.* 8. 13 *R.* 2. *Ch.* 9. 26 Stone of 14 *l.* each, is 1 Sack or 364 Pound.

TABLE 6. *Of Wine Meaſure.*

4 Quarts, or 231 ſolid Inches, is — 1 Gallon.
42 Gallons — 1 Tierce.
1½ Tierce or 63 Gallons — 1 Hogs-head.
2 Hogs-heads — 1 Pipe or Butt.
2 Pipes — 1 Ton.

In 1 Ton, are,
6 Tierce or 252 Gallons
4 Hogs-heads.
2 Pipes or Butts.

Note, That Honey and Oyl are meaſured by this Meaſure.

TABLE 7. *Of Beer Meaſure.*

2 Pints — 1 Quart.
2 Quarts — 1 Pottle.
2 Pottles or 282 ſolid Inches, is — 1 Gallon.
9 Gallons — 1 Firkin.
2 Firkins — 1 Kilderkin.
2 Kilderkins — 1 Barrel.

In a Barrel are,
288 Pints.
144 Quarts.
72 Pottles.
36 Gallons or
10152 Solid Inches.
4 Firkins.
2 Kilderkins.

Note, That 1½ Barrel, or 54 Gallons is a Hogs-head of Beer.

TABLE 8. *Of Ale-Measure.*

2 Pints	1 Quart.	In a Barrel are,	256 Pints.
2 Quarts	1 Pottle.		128 Quarts,
2 Pottles or 282 solid Inches, is	1 Gallon,		64 Pottles.
			32 Gallons or
8 Gallons	1 Firkin of Ale, Herring or Soap.		9024 Solid Inches.
			4 Firkins.
2 Firkins.	1 Kilderkin.		2 Kilderkins.
2 Kilderkins	1 Barrel.		

TABLE 9. *Of Dry-Measure.*

2 Pints	1 Quart.	In one Last are,	5120 Pints.
2 Quarts	1 Pottle.		2560 Quarts.
2 Pottles.	1 Gallon.		1280 Pottles.
2 Gallons	1 Peck.		640 Gallons.
4 Pecks	1 Bushel Corn-Measure.		320 Pecks.
5 Pecks	1 Bushel Water-Measure.		80 Bushels.
8 Bushels	1 Quarter.		10 Quarters.
4 Quarters	1 Chaldron.		2 Weys.
5 Quarters	1 Wey.		
2 Weys	1 Last.		

Note, That 36 Bushels is a Chaldern of Sea-Coal, by the 16, 17 *C. 2. Chap. 2.*

TABLE 10. *Of Long-Measure.*

3 Barley-Corns	1 Inch.	In a Mile are,	190080 Barley-Corns.
12 Inches	1 Foot.		63360 Inches.
3 Foot or 16 Nails	1 Yard.		5280 Feet.
45 Inches	1 Ell English.		1760 Yards.
27 Inches	1 Ell Flemish.		320 Polls or Perches.
2 Yards	1 Fathom.		8 Furlongs.
5 Yards and ½	1 Poll or Perch.		
40 Perches	1 Furlong.		
8 Furlongs	1 English Mile.		

TA-

TABLE 11. *Of Square or Superficial-Measure.*

16	Quarter of an Inch	1 Inch.	In a Sq. Mile, are	4014489600	Squ. Inch.
144	Inches	1 Foot.		27878400	Feet.
9	Foot	1 Yard.		3097600	Yards.
30	Yards and ½	1 Poll.		102400	Polls.
40	Poll long, & 1 broad	1 Rod of Land or Qr. of an Acre.		2560	Roods.
4	Square Rods	1 Acre.		640	Acres.
640	Acres	1 Square Mile.			

TABLE 12. *Of Dozen.*

12	Pieces or things is	1 Dozen.	In a great Gross are,	12	Small Gross.
12	Dozen	1 Small Gross.		144	Dozen.
12	Sm. Gross	1 Great Gross.		1728	Pieces or things.

TABLE 13. *Of Time.*

60″	(Second)	1′ Minute.	In a Year are,	31557600	Seconds.
60	Minutes	1 Hour.		525960	Minutes.
24	Hours	1 Natural Day.		8766	Hours.
7	Days	1 Week.		365	Days &
4	Weeks	1 Month.		6	Hours.
13	Months 1 Day and 6 Hours	1 Solar Year.			

But note, That from the time the Sun leaveth 1 Tropick to the time it returns to that Tropick is 365 Days, 5 Hours, 49 Minutes, 4 Seconds, and 21 Thirds.

TABLE 14. *Of Motion.*

60″ (Seconds) maketh 1 Minute.
60′ (Min.) or Miles, or 4′ of Time — } 1 Degree.
30 Degrees —— 1 Sign of the Zodiack.
3 Signs or 90° — 1 Quadrant.
4 Quadrants or 360° —— } 1 Circle of the Sphere.

§. 4. *The uſe of the Foregoing Tables.*

YOU have for each of the foregoing Denominations of Money, Weight, Meaſure, *&c.* 2 Sorts of Tables, that toward the Left hand, ſhewing how many Units of an inferiour Denomination are contained in a Unit of the next ſuperiour Denomination, by which you may know how to add or ſubſtract any Numbers of thoſe Denominations. The other Tables toward the Right hand, ſhew how many Units of any of the lower Denominations is contained in a Unit of the higheſt Denomination, which is very uſefull for the ſpeedy reducing of any thing from one Denomination to another.

The firſt Table is of *Engliſh* Coin, the leaſt Denomination of which is a Farthing, and the greateſt of our real Pieces a Crown or 5 *s.* 4 whereof make 1 Pound or 20 *s.* concerning which Money you have a farther Account in Exchange of Coin.

The ſecond Table is of Troy Weight, by which is weighed Bread, Corn, Jewels, Gold, Silver, Amber, and Electuaries; and all Meaſures for Wet and Dry are taken from this Weight. By the Statutes of 51 *H.* 3. and 13 *Edw.* 1. it was Enacted, That one Peny ſhould contain in Weight 32 Natural Grains of Wheat taken out of the middle of the Ear, or 24 Artificial Grains, as in the Table of Troy Weight.

The third Table is of Averdupoize Weight, 16 Ounces or 1 Pound of which is equal to 14 *oun.* 12 *dw.* Troy. By this Weight is weighed all manner of things that have waſte, as Phyſical and Grocery Drugs, Rozen, Wax, Pitch, Tarr, Tallow, Butter, Cheeſe, Soap, Hemp, Flax, Fleſh, Iron, Steel, Tinn, Copper, Lead,

Lead, Allum, Copperas, *&c.* 112 *l.* of which is the Hundred; and in adding, for every 16 Drams carry one to the Ounces, for every 16 Ounces carry 1 to the Pounds, for every 28 in the Pounds place carry 1 to the Qr. of Hundreds for every 4 in the Qr. of Hundreds carry 1 to the Hundreds. Note, That 56 *oun. Averd.* is but 51 *oun.* Troy.

The fourth Table is of Apothecaries Weights, by which they compound their Medicines, tho' they buy and ſell their Drugs by the Averdupoize Weight. In adding this Weight, for every 20 in the Grains place, carry 1 to the Scruples, for every 3 Scruples, carry 1 to the Drams, for every 8 of theſe Drams, carry one to the Ounce, for every 12 Ounces, carry 1 to the Pounds place.

The fifth Table is the Weight by which Sheeps Wooll is weighed; in adding of which Weight, you are for every 7 Pound to carry 1 to the Cloves place, for every 2 Cloves to carry 1 Stone, for every 13 Stone carry 1 to the Weys place, *&c.*

The ſixth Table is of Wine Meaſure, where, in adding, you muſt for every 4 Quarts, carry 1 to the Gallons, for every 63 Gallons, carry 1 to the Hogs-head's place, for every 2 Hogs-heads, carry 1 to the Pipes place, and for every 2 Pipes, carry 1 to the Tuns. Note, That the Wine Gallon contains but 231 ſolid Inches by the Standard of the Exchequer, which is leſs than the Ale or Beer Gallon. By which Gallon of 231 Inches, all other Liquids, except Ale and Beer are meaſured by the 12 *Ch.* 2. And note, That a Tun of Wine weighs 17 *C.* Averdupoize, and 1 Pint is 1 *l.* $0\frac{1}{2}$ *oun.* Troy.

The ſeventh Table is of Beer Meaſure containing 282 ſolid Inches to the Gallon, by which Strong, Mild, and Small Beers are meaſured; the Denominations uſually added by Exciſe Officers, *&c.* are for every 9 Gallons, carry 1 to the Firkins, for every 4 Firkins, carry 1 to the Barrels, 36 Gallons being 1 Barrel by the 12 of *Char.* 2.

The eighth Table is of Ale Meaſure, containing as the Beer 282 ſolid Inches, but the Barrel is leſs than the Beer Barrel, by 1128 ſolid Inches, or 4 Gallons: ſo that for every 8 Gallons, carry 1 to the Firkins, and for every 4 Firkins, carry 1 to the Barrels, 32 Galllons being 1 Barrel by 12 *Ch.* 2.

The ninth Table is of dry Meaſure, for Corn, Salt, Sea-Coal, *&c.* the Gallon (by the Standard) of this Meaſure is $272\frac{1}{4}$ ſolid Inches.

And

And in adding, you are for every 2 Gallons or ½ Peck to carry one to the Pecks, for every 4 Pecks carry 1 to the Buſhels, and for every 8 Buſhels carry 1 to the Quarters, which is the higheſt Denomination of Corn Meaſure.

The tenth Table is of Long Meaſure, in which no notice is taken of Breadth, as of Heights, Depths, Diſtances, Length of Cloth, Roads, *&c.* and in adding this kind of Meaſure, you are for every 3 Feet or 4 Quarters of a Yard to carry 1 to the Yards, for every 11 half Yards carry 1 to the Perches, for every 40 Perches carry 1 to the Furlongs, and for every 8 Furlongs carry 1 to the Miles. But note, That tho' 5½ Yards is a Poll or Perch, according to Statute, yet in ſome Countries they have 7, 7½, and 8 Yards to the Poll called cuſtomary Meaſure. Tho' 160 Square Perches, each 5½ Yards is an Acre by the 24 *H.* 8 *Ch.* 8.

The eleventh Table is of Superficial Meaſure, which is that wherein Length and Breadth is conſider'd, as in meaſuring Board, Glaſs, Pavements, Wainſcot, Tiling, Plaiſtering, Flooring, *&c.* where for every 144 Inches, you muſt carry 1 Foot, for every 9 Foot 1 Yard; or in Land, for every 40 Square Perches carry 1 to the Rods, for every 4 Rods carry one to the Acres. And note, That the ſolid Foot is 12 Inches long, 12 broad, and 12 thick, or 1728 ſolid Inches, uſed in meaſuring Timber, Stone, *&c.*

The twelfth Table is of Dozen, uſefull in adding things computed thereby, which are very numerous, of which, ſuch wherein the great Groſs is uſed, you have following. In adding hereof, you muſt for every 12 carry 1 to the Dozens places, for every 12 Dozen 1 to the Small Groſs, for every 12 Small Groſs 1 to the Great Groſs.

The thirteenth Table is of Time; of which ſome ſay, How can 365 Days and 6 Hours be found in a Year, ſince to multiply 52 Weeks by 7 Days, produceth but 364 Days? But if ſuch Queriſt looks into his Almanack (wherein no doubt but he believes all contain'd) he will find 52 Weeks and 1 Day in a Year, and every fourth Year, 52 Weeks, 2 Days, or 52 Weeks, 1 Day and 6 Hours every Year one with another, according to the Engliſh Account of computing Time.

The fourteenth is a Table of Motion, whereby the Motion of the Heavenly Bodies, as the Sun, Moon, *&c.* (or of the Earth, according to *Copernicus* his Syſtem of the World) is computed, of which

which I need ſay nothing more, it being more uſed by the Aſtronomer than Merchant.

Tables of Quantity in Whole-Sale Trade.

Note, That Things in a Whole-Sale way Bought and Sold by the 1000, are

- Tacks.
- Chair Nails and Tenter-Hooks.
- Brick Stones.
- *Flanders*, Paving and Pan Tyles.
- Cuttlebones.
- Pack and Sail Needles.
- Oranges and Lemmons.
- Pomgranates.
- Gooſe Quills.
- Copper Spangles.
- Tazels.
- Thimbles.
- Trunnels.
- Billets.
- Ox bones.
- Leaves of Horn for Lantherns.
- Ox Horns.
- Hoops for Barrels.
- Roe Buck, and Stags Tips.
- Pieces of Box-wood for Combs.
- Lamperns.
- Yards of Cloth-Liſt.
- Squerril Skins.
- Slate and Hilling Stones.

Pins and Small Needles by the 1000 Dozen.

---

120 in Number is the Hundred of

- Balks of all ſorts.
- Barlings.
- Barrel Boards.
- Pipe Boards.
- Bomſpars.
- Bowſtaves.
- Cant Spars.
- Capravens.
- Herring.
- Deal Boards.
- Nails.
- Eggs.
- Codfiſh.
- Colefiſh.
- Lingfiſh.
- Newlandfiſh,
- Stockfiſh all ſorts.
- Heading for Pikes.
- Ells of Canvas (except Strip'd, Tufted or Quilted.
- Coney, Stag, and Lamb } Skins.
- Oars.
- Hogs-heads Staves.
- Ells of Drilling, } Linnen Cloath.
- Pack-Duck, } Linnen Cloath.
- *Hamborough*, } Linnen Cloath.
- *Slecia*, *Iriſh*, } Linnen Cloath.
- *Muſcovy*, } Linnen Cloath.
- *Weſtphalia*, } Linnen Cloath.
- *Hanover*, &c. } Linnen Cloath.

Of

Of Clap Board the Great Hundred is 24 Small, or 2880, and the Thouſand Herrings is 1200.

Tables of Quantity in Whole-Sale Trades.

By the Great Groſs containing 12 Small Groſs or 144 Dozen are bought and ſold in a whole Sale way of Trade.

- Mettal, Glaſs, Thread, Silk, Handkercher, and Hair, Buttons.
- Cap-hooks.
- Playing Cards.
- Comb and Spectacle Caſes.
- Lightwood and Box Combs.
- Cheſs-men.
- Thread and Silk Points.
- Tobacco Pipes.

Things of which five Score is reckoned a Hundred Weight.

- Croſſbow-Thread.
- Ginger.
- Horſe Tails with Hair.
- Indigo.
- Thrums.
- Capers.
- China Roots.
- Braſs and Lattin Manufactures.

Of Hay the North Country Stone is 14 *l.*, 4 of which, or 56 *l.* is 1 Truſs by 2 *William* and *Mary*, *Chap.* 8. or of new Hay 60 *l.* to the Truſs in *June* and *Auguſt*, on forfeit of 18 *s. per* Truſs; and the Load is 36 Truſs of 56 *l.* old Hay.

Of Iron and Shot, 14 *l.* is 1 Stone, 2 Stone 1 Quarter of a Hundred, *&c.* as in Averdupoize Weight.

In *Eſſex* they weigh Cheeſe and Butter by the Clove of 8 Pounds, and 31 to the Wey. But in *Suffolk* they allow 42 Cloves or 336 Pounds to the Wey.

The

The Barrel of ſundry Commodities, is as follows:

Anchoveys —— —— 30 } Pound.
double Barrel - —— 60 }
Nuts or Apples —— —— 3 Buſhel.
Oatmeal, Potaſh or Barillia - 200 Pound.
Salmon or Eels —— —— 42 Gallons.
White or black Plates - — - 300 Plates.
Candles —— —— 10 dozen Pound.
Figgs - —— 0 *C.* 3 *q.* 14 *l.* to 2½ *C.*

Raiſins —— 1 *C.* Weight.
Oyl —— 3 1½ Gallons.
Spaniſh Tobacco — 2 to 3 *C.*
Gunpowder - — 1 *C.* Weight.
Soap —— — 240 *l.*
Butter - —— - 224 *l.*
Herring - —— - 32 Gallons.

Of Timber, 43 ſolid Feet make 1 Tun ——

600 Foot of 1
400 Foot of 1½
300 Foot of 2
200 Foot of 3
150 Foot of 4
} Inch Plank, make 1 Load.

Where Sea-Coal and Salt are Meaſured by the Corn-Meaſure, they are Heaped, or elſe there are 5 Striked Pecks to the Buſhel; 36 ſuch Buſhel in a Chaldren of Sea-Cole, and 21 Chaldren to the Score.

I had here thought to have incerted the Length, Breadth, and Weight of Woollen Cloth, but the Statute 4 *Jac.* 1. for Aſcertaining the ſame, being obſolete, and not much regarded, I have omitted the ſame.

§. 5. *Examples of adding Numbers of divers Denominations.*

Example I.

Of Troy-Weight.

	lb.	ou.	dw.	gr.
	416	08	15	20
	842	01	10	05
	26	11	04	17
	22	06	19	23
Total—	1308	04	10	17

Example II.

Averdupoize-Weight.

	Ton.	C.	Qr.	lb.	ou.	dr.
	147	16	3	14	15	15
	119	03	1	04	01	00
	7	19	3	27	10	08
	1	10	2	10	13	12
Total—	276	10	3	01	09	03

Example III.

Of Wine-Measure.

	Ton.	Buts.	H-ds.	Gal.
	31	01	01	38
	10	01	00	10
	5	00	01	60
	7	01	01	09
Tot.	55	01	00	54

Example IV.

Beer-Measure.

	Bar.	Fir.	Gal.
	31	03	08
	17	02	01
	12	01	05
	72	03	06
	134	03	02

Example V.

Ale-Measure.

	Bar.	Fir.	Gal.
	71	03	07
	18	01	01
	28	00	02
	13	02	06
	132	00	00

Example VI.

Of Time.

Days.	Hours.	′	″
34	12	40	48
420	5	10	20
510	23	59	50
21	10	00	11
987	3	51	9—Total.

Example VII.

Of Dozen.

Gr. Gross.	Sm. Gr.	Doz.	Things or Pieces.
56	10	06	11
148	09	11	03
26	11	01	09
533	02	08	10
765	10	04	09

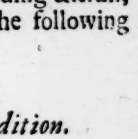
By

By theſe few Examples, with the help of the foregoing Tables, the Learner will be enabled to add any Numbers propoſed, of what Denomination ſoever; which Tables he will find exceeding Uſefull, not only in this Rule of Addition, but likewiſe in the following Parts of Arithmetick and Merchant's Accompts.

§. 6. *The Reaſon and Demonſtration of Addition.*

BY *Euclid*, Lib. 1. Axium 9. of his *Elements*, the Whole is equal to all its Parts taken together.

So the Right line *(gh)* is equal to the 3 lines *ab*, *cd*, and *ef*:



For the 3 lines *ab*, *cd*, and *ef*, being all the Parts contained in the Whole line *gh*, and the line *ab*, added to *cd*, and that Summ to *ef*, making up the line *gh*; therefore the line *gh*, is equal to the Summ of the Parts, *viz.* to *ab*, more *cd*, more *ef*, taken together:

Or, in Numbers I ſay, that 15, 16, and 42, make up 73; which cannot be denied, ſince there are no more Units in 73, but 15, 16, and 42; nor no more Units in 15, 16, and 42, than 73; therefore the Number 73, muſt be equal to the Numbers 15, 16, and 42.

Parts	15
	16
	42
Total-	73

2. The Reaſonableneſs of the Rules given for adding Numbers together, will thus appear from what was ſaid in Numeration, of the places of Numbers: For in Addition every degree or place muſt be added to the like degree or place; So that in the Unit's place, if there is one or two Ten's, it is plain that thoſe one or two Ten's muſt be added to the Numbers in Ten's place, becauſe they are of the ſame Denomination; ſo if in a Rank of Figures (in Ten's place) I find 2 or 3 times Ten, for every 10 in Ten's place, I have One Hundred to carry to the Hundred's place; for 10 times 10 is One Hundred, as was obſerved before; Hundred's muſt be added to the Hundred's, becauſe 'tis of the ſame degree or place.

For Example:

In adding 149*l.* 17*s.* to 18*l.* 8*s:* I ſay, 8 ſhillings and 7 ſhillings, is 15 ſhillings, which is 1 Ten to be carried to the place of Ten ſhillings; which one Ten being added to the other Ten, makes two Ten's, or 20 ſhillings: which being one Unit of the next Denomination, *viz.* Pounds: I therefore add the 1 pound to the Unit's place of pounds; ſaying, 1 and 8 is 9, and 9 is 18 pounds; which 8 being Units of Pounds, I place it in the Units of Pound's place of the Summ, and carry the 10 pound to the 10 Pound's place, of which Denomination it is one: So 1 Ten and 1 Ten is 2 Ten's, and 4 Ten's is 6 Ten's; which being leſs than 10 Ten's, or 100, I have nothing to carry to the Hundred's place; ſo I place 6 in Ten's place of the Summ, and put the 100 to the Left-hand in Hundred's place of the Summ: This being obſerved, any Summ may be added, without carrying any thing from one degree or place to another, (which is done purely to ſave trouble:) For inſtance;

	l.	*s.*	
	149	17	} Parts.
	18	8	
	168	5	Total.

Let it be required to add,

2976.	The Summ of the Figures in Unit's place is—15
4132	Of Ten's place is——140
8647	Of Hundred's place is——1600
15755	And of Thouſand's place is——14000
	The Total of which is——15755
	Equal to the firſt Total.

Becauſe Addition and Subſtraction do prove each other, I ſhall ſhew the Proof of Addition after Subſtraction; which followeth.

Sub-

Chap: 3.

Substraction Teacheth to take a Lesser Number from a Greater and to know ye Remainder

	£	li	s	d
Rec.d	7582094	457	09	07 ¼
Paid	6129762	126	16	10 ½
Remains	1452332	330	12	08 ¾
Rec.d	7582094	457	09	07 ¼
Rec.d	5469387	602	11	08
Paid	2672052	74	19	10 ½
Rest				
Rec.d				
Rec.d	1020060	894	00	01 ½
Paid	40709	372	14	09 ¾
Balance				
Rec.d				

Subſtraction is either,

1. Of Numbers of one Denomination: Or,
2. Of divers Denominations, and is the Converſe of Addition.

§. 1. *When you have placed the Numbers in Order, the leſſer under the greater, as is uſual, (unleſs it may, as ſometimes it does (by having the leſſer Number uppermoſt) ſave the trouble of removing a Number) this is the Rule.*

Rule.] Having drawn a Line under the Numbers given, begin with the Digit ſtanding in Unit's place, of the Number to be ſubſtracted, and take it from the Figure poſſeſſing the like place of the greater Number; placing the Exceſs or Difference under the line, doing in like manner with all the reſt. But if the Figure in the leſſer Number be greater than the Figure poſſeſſing the like place in the greater Number; then you muſt add 10 to the ſaid leſſer Figure, and ſo proceed to take the ſaid greater Number from the Summ, placing the Remainder under the line; and becauſe the 10 borrowed was ſuppoſed to be taken from the next Figure toward the Left-hand, therefore add one to that Figure, and ſo proceed to ſubſtract, as in the former, placing the Exceſs under the line, as before.

Example.] Admit I have laid out Caſh, the Summ of 4579 pounds, out of 6947 pounds, which I had in Bank; what Summ remains yet in my hands?

The Numbers being placed, take 9 in the Unit's place of the lower line from 7, in the like place in the upper line; but becauſe you cannot, borrow 10 from the 70, which ſtands in the Ten's place, and add to the 7 which ſtands in the upper line, making it 17; ſo 9 from 17 will leave 8; which put under the line, and ſay, 1 (that is 1 Ten) I borrowed and 7 is 8, from 4 and 10 you borrowed as before, that is from 14, leaves 6; which place under the line, ſaying, 1 you borrowed and 5 is 6, from 9 leaves 3, and 4 from 6 leaves 2; which being put under the line, there will appear to remain in my hands 2368 pounds.

	l.
	6947
	4579
Remains	2368

In like manner, in the firſt Example foregoing, if you take 6129762 Hundred from 7582094, there will remain 1452332; for

for 2 from 4, and there reſts 2; 6 from 9, reſts 3; 7 from 10, (which I borrowed) reſts 3; 1 borrowed and 9 is 10, from 12 reſts 2; 1 borrowed and 2 is 3, from 8 reſts 5; 1 from 5, reſts 4, and 6 from 7, and there reſteth 1; ſo the difference between the Numbers given is 1452332.

§. 2. How to ſubſtract Numbers of divers Denominations.

In the firſt Example foregoing of Pounds, Shillings, Pence and Farthings, you have 126*l.* 16*s.* 10½*d.* to deduct from 457*l.* 9*s.* 7¼*d.* To perform which, begin with the farthings; ſaying, 2 from 1, you cannot; but 2 from 4 farthings (or 1 penny which you borrow from the pence) and the 1 farthing in the upper line, that is, from 5, and the remainder is 3 farthings; which put under the line as you ſee, ſaying, 1 I borrowed and 10 pence is 11 pence, from 7 pence you cannot, but from 19 (borrowing 1 ſhilling or 12 pence from the ſhillings, and adding to the 7) and the remainder is 8 pence; which put under the line, and ſay, 1 ſhilling you borrowed and 16 ſhillings is 17 from 29 ſhillings (borrowing 20 ſhillings or 1 pound from the pounds, and adding to the 9 in the upper line) and there reſteth 12 ſhillings, which place under the line; And ſay, 1 pound you borrowed and 6 (in the Pound's place) is 7, from 7 leaveth (0), put (0) under the Unit's place of pounds, and ſay, 2 from 5, and there reſteth 3; and 1 from 4, and there remains 3: ſo the Remainder is, 330*l.* 12*s.* 8¾*d.*

More Examples follow.

	C.	*Qrs.*	lb.
Bought Cotton-Wool	121	1	20
Sold out	92	3	27
Remains	28	1	21

	lb.	℥.	*p.w.*	*gr.*
Bought Silver, Weight	19	00	09	14

	lb.	℥.	*p.w.*	*gr.*					
Sold out at one time	4	10	16	00	} In all	17	08	00	16
At another time	12	09	04	16					
Reſteth unſold						1	04	08	22

§. 3. *A Second Way of Subſtraction.*

I think it a much better way, when any thing is borrowed, to add to the Figure in the Number from whence you ſubſtract, in caſe 'tis too little: To take what is borrowed from the Figure ſtanding next toward the Left-hand of the Figure that is too little, and ſuppoſe the Figure from whence you borrowed to be ſo much leſs: So will you never need to pay what was borrowed, as is before taught.

EXAMPLE.

Here, inſtead of ſaying 4 from 11 reſts 7, and 1 borrowed and 8 is 9, from 12 reſts 3: It will be much leſs trouble to ſuppoſe the 10 borrowed to be actually taken from the 2, as it really is, and ſo the reſt of the Figures; ſo muſt you ſay 4 from 11 reſts 7, 8 from 11 reſts 3, 1 from 8 reſts 7, 9 from 17 reſts 8, 2 from 2 reſt 0. This way of Subſtraction is much more natural and reaſonable than the former, or common way; but the Learner may uſe which he pleaſeth; though I doubt not, but were this way as much practiſed as the former, it would be found much better.

From	37921
Take	29184
Difference	8737

§. 4. *The Reaſon and Demonſtration of Subſtraction.*

From the Axium aforeſaid of the whole, being equal to all its parts taken together, we may demonſtrate (or undeniably prove) the Premiſes: For the Number from whence we make Subſtraction, is the whole; and the Number to be ſubſtracted, is part of that whole. Now if the part be taken from the whole, what remains will be the true difference between the part and the whole; for the whole containeth no more parts than the Summ made of the part taken away; and the part remaining, and the part taken from the whole, is only ſo much leſs than the whole, as the part remaining; Therefore the part remaining is the true Exceſs or Difference between the whole and the part taken from it.

As to the reaſon of the Rule for Subſtraction, I need ſay no more than what is above concerning the ſecond way of Subſtraction, and what

what was ſaid in the Reaſon of Addition, and what follows in the proving Subſtraction.

§. 5. *The Proof of Subſtraction two ways.*

The Demonſtration foregoing is ſufficient to prove the Truth of Subſtraction: But becauſe there was no Example, take theſe following.

The Summ of the Subtrahend and Remainer is equal to the Number given, from whence Subſtraction is to be made: For inſtance:

From 56742
Take 39752 } Add.
Remains 16990 }

Proof 56742 the Summ, equal to the Number, from whence Subſtraction is to be made.

Or thus by Subſtraction:

From the whole 56742
Take the part 39752

Remains 16990 Which deduct from the whole,

And there reſteth the part given to be deducted, 39752 for Proof.

§. 6. *The Proof of Addition two ways.*

After you have taken the Summ of the Numbers given to be added, you may prove the Truth of the Summ by ſeparating the ſaid Numbers into two parts with a line, and the Summ of thoſe parts will (if there is no Error) be equal to the Aggregate or Summ of all the Numbers given.

EXAM-

EXAMPLE.

l.	*s.*		*l.*	*s.*
5762	4	} The Summ of theſe parts	7182	17
397	12			
1023	01			
8942	13	} The Summ of theſe parts	10543	01
1600	08			
The Total 17725	18			

The Total of theſe is equal to the firſt Total. } 17725 18 Proof

Or thus by Subſtraction:

	l.	*s.*
The total Summ of the Numbers given is—	17725	18
from which deduct the firſt part	5762	4
Remains	11963	14
from which deduct the 2d part of the Tot.	397	12
Remains	11566	02
from which deduct the 3d part	1023	01
Remains	10543	01
from which deduct the fourth Number	8942	13
And there remains	1600	08
from which deduct the fifth Number	1600	08
And the Remainder is	0000	00

Which, being Cyphers, proves the Work.

Multiplication Table.

3 Times	3 : 9	
	4 : 12	
	5 : 15	
	6 : 18	
	7 : 21	
	8 : 24	
	9 : 27	
4 Times	4 : 16	
	5 : 20	
	6 : 24	
	7 : 28	
	8 : 32	
	9 : 36	
5 Times	5 : 25	
	6 : 30	
	7 : 35	
	8 : 40	
	9 : 45	
6 Times	6 : 36	
	7 : 42	
	8 : 48	
	9 : 54	
7 Times	7 : 49	
	8 : 56	
	9 : 63	
8 Times	8 : 64	
	9 : 72	
9 Times	9 : 81	
	10 : 90	
	11 : 99	
12 Times	2 : 24	
	3 : 36	
	4 : 48	
	5 : 60	
	6 : 72	
	7 : 84	
	8 : 96	
	9 : 108	
	10 : 120	
	11 : 132	
	12 : 144	

MUltiplication is a Rule by which any Number may be ſo increaſed by multiplying it by another, as to produce a third Number, which ſhall bear ſuch reaſon or proportion to either of the Numbers given, as the other does to a Unit.

The two Numbers given to be multiplied, are for ſhortneſs termed the Factors: Or,

The one (commonly the greater) is called the Multiplicand, and is that Number given to be multiplied.

The other is called the Multiplier, and is that Number by which the Multiplicand is multiplied.

The third Number, which is that produced by multiplying the two given Numbers together, is called the Product, or in Geometry it is called the Rectangle.

By this Rule is compendiouſly performed many Additions; As, 4 times 80 is 320, which would require three Additions to know; as you ſee in the Margent.

Multiplicand 80 } Factors.
Multiplier 4 }

Product 320

80
80
80 } Add.
80

320 Summ.

Multiplication is either Simple or Compound.

Simple when the Factors are both Digits: And,

Compound when the Factors are one or both mixt Numbers or Articles.

[Before you go any farther, you muſt get the foregoing Tables by heart; which, ſuppoſing you have done, take the following Rules for working any Summ propounded.]

Caſe 1.] When the Product of each Figure in the Multiplicand, by the Multiplier, is leſs than Ten, how to Multiply by a Digit.

Rule.] Having placed the Factors, Units under Units, as in the Margent, multiply each Figure in the Multiplicand by the Multiplier, and place the ſeveral Products under the line, beginning with the Figure in Units place of the Multiplicand.

Example.] What comes 3214 pound of Tea to, at 2 pound *per* pound?

Say, 2 times 4 is 8, which put under a line, as in the Margent; ſaying, 2 times 1 is 2, 2 times 2 is 4, and 2 times 3 is 6: ſo the Anſwer is, 6428 *l.*

3214	
2	
Product *l.* 6428	Anſw.

Caſe 2.] When the Product of any of the Figures in the Multiplicand, by another in the Multiplier, is 10, or any Number of Ten's.

Rule.] Put down in the General Product the Number of Units, that the Product of any 2 Figures, in the Factors, are above 10, or any Number of Tens, and carry the ſaid 10 or Tens to the Product of the next Figure, and ſo proceed till all the Figures in the Multiplicand are multiplied by the Multiplier.

Example.] What is the Price of 3484 Sacks of Cotton, at 9 pounds *per* Sack?

According to the Rule, ſay, 9 times 4 is 36: put the 6 under the line, and carry 3; ſaying, 9 times 8 is 72, and 3 I carry is 75: put down the 5, and carry 7; ſaying, 9 times 4 is 36, and 7 is 43: put down 3, and carry 4; ſaying, 9 times 3 is 27, and 4 I carry is 31; which put all down: ſo will you find the Anſ. 31356 *l.* as *per* Margent.

3484 }	Factors.
9 }	
Anſ. *l.* 31356	Product.

Caſe 3.] When the Factors are each above 10, how to find the Product.

Rule.] Multiply the Figures in the Multiplicand by that ſtanding in the Unit's place of the Multiplier, as before; and in like manner multiply the Multiplicand by the Figure ſtanding in the Ten's place of the Multiplier: but you muſt place the Unit's place of the ſecond Product under Ten's place of the firſt, and the other degrees in order; Tens under Hundreds, Hundreds under Thouſands of the firſt Product: which done, add the Products together, and the Aggregate or Summ is the General Product required.

Example.] What is the price of 549 Ton of Iron, at 18 pounds *per* Ton?

Note, that if there had been 3 Figures in the Multiplier, when you were to multiply by that in Hundred's place; the firſt Figure of the Product muſt have been placed under the 9 in the lower of theſe Products: The following Examples will make it plain.

594 }	Factors.
18 }	
4752	
594	
Anſ. *l.* 10692	Product.

Caſe 4.]

Caſe 4.] When you have any Number of Cyphers toward the Right-hand of the Multiplicand and Multiplier, or either of them; Multiply by the ſignificant Figures, and put the Cyphers toward the Right-hand of the Product.

Example 1.] Admit the Earth's Circumference is 360 Degrees, and that one Degree is 60 Miles, how many Miles is it round the Earth?

360 Degrees
60 Miles } Factors.

Anſwer 21600 Product.

Example 2.] If in a Mile is 1000 Paces, how many Paces in 1000 Miles?

1000
1000 } Factors.

Anſwer 1000000 Product.

In this and the like Examples where the Multiplier is only a Unit with Cyphers; place thoſe Cyphers to the Right-hand of the Multiplicand, and you have the true Product; for 1 neither augmenteth nor diminiſheth any Number by Multiplication nor Diviſion, and is therefore by ſome ſaid to be no Number; but 1 and 1 being 2, proves the contrary.

Caſe 5.] When Cyphers poſſeſs any other place than next the Right-hand of the Mutiplier.

Rule.] When Cyphers ſtand in the Middle of the Multiplier, you muſt place the Unit's place of the Product made of the Figure ſtanding next the Cyphers toward the Left-hand, ſo many places forward as there are Cyphers in the ſaid Middle, ſupplying their places with as many points; ſo will you not need to make ſo many lines of Cyphers, as many ignorantly do.

Example.] Multiply 3942300
by 720020 } Factors.

78846.
78846..
275961

2838534846000 Product.

The

§. 2. *The Reaſon and Demonſtration of Multiplication.*

If two Lines (or Numbers) be given, and one of them be divided into any Number of Parts; the Product made of the two whole Lines (or Numbers) is equal to the Product made of the whole Line (or Number) and the ſeveral Parts of that divided. *Vid.* Euclid's *Elem. Prop.* 1. *Lib.* 2.

To inſtance in Numbers: If 346 were to be multiplied by 122, which 122 ſuppoſe divided into 3 parts, *viz.* 100, 20 and 2: I ſay, the Product made of 346 by 122, is equal to the Summ of the Products, *viz.* 346 by 100, 346 by 20, and 346 by 2; as followeth.

346	346	346
100	20	2
1*ſt.* Product = 34600	6920 = 2*d.* Product.	692 = 3*d.* Product.
2*d.* Product = 6920		
3*d.* Product = 692		
Summ = 42212		

The Product, equal to the Product of 346 by 122

692
692
346

Viz. 42212

For there being no more Units in 42212, than in the Products 34600, 6920, and 692; nor any more Units contained in the Products 34600, 6900, and 692, but what is contained in the Product 42212; therefore the Products 34600, 6920, and 692, are equal to the Product 42212.

From hence alſo is the reaſon of placing the Units of the ſecond Product, under Tens of the firſt; Units of the third, under Tens of the ſecond, *&c.* as in the Example; where 324 by 3, is 972; 324 by 20 (2 being in Ten's place) is 6480; and 324 by 100 (1 being in Hundred's place) is 32400; and if the Cyphers be omitted, (which 'tis moſt proper to do, ſince they make no Number greater by Addition) the Numbers will ſtand as in ordinary Summs in this Rule: ſee the Margent.

	324
	123
	972
	6480
	32400
The Summ	39852

Divi-

Division

teacheth to Divide or Seperate any Number or Quantity into as many Parts as you please.

In this Rule

Observe 4 Things Viz: The Dividend, Divisor, Quotient & Remain:

THE Dividend is the Number given to be divided.

The Diviſor is the Number by which the Dividend is divided.

The Quotient is the Number of times that the Diviſor is contained in the Dividend.

The Remainer is the Number that may remain of the Dividend after the Diviſor is had, as many times in it as is expreſſed in the Quotient: From whence it follows, that the Remainer muſt be always leſs than the Diviſor, or otherwiſe the Diviſor might be had once more in it.

As Multiplication is a compendious way of Addition, ſo Diviſion is the work of many Subſtraction; for if 12 be divided by 4, the Quotient would be 3; for 4 may be taken 3 times out of 12.

Dividend

Diviſor 4) 12 (3 Quotient

0 Remainder

1ſt. From 12 take 4 remains 8

2d. Take 4 remains 4

3d. Take 4 remains 0

There are ſeveral ways that I could eaſily ſhew for the dividing one Number by another; but I ſhall only inſert one, which is plainer than Cancelling, and ſhorter than the other ways commonly practiſed; and is therefore, in my opinion the beſt.

Caſe 1.] To divide any Number by a Diviſor, conſiſting but of one place.

Let it be required to divide 37642 by 7.

Having made a crooked (or any other) Line at each end of the Dividend, to ſeparate it from the Diviſor and Quotient, make a point or prick under 7 in the Dividend, (not under 3, becauſe you cannot take the Diviſor from the 3,) and ſay, how often is 7 (the Diviſor)

Diviſor) contained in 27, the firſt Branch toward the Left-hand of the Dividend? the Anſwer is 5 times; which (5) put in the Quotient, and multiply the Diviſor thereby; ſaying, 5 times 7 is 35; which deduct from the ſaid 37, and put the Remainer (which is 2) under a Line; as in the Example: Then make a prick under the 6 (as a diſtinguiſhing Mark, that no Figure may be brought down twice) and place it to the Right-hand the Remainer (2) and ask how often 7 is contained in 26? the Anſwer is 3 times; which put in the Quotient, as before, multiplying the Diviſor thereby: As, 3 times 7 is 21, from 26, and there remains (5;) which put under the 6, drawing a Line between the 26 and the 5: Then make a prick under the next Figure, toward the Right-hand, in the Dividend; *Viz.* under (4,) and place it to the Right-hand, the remainer 5, making it 54, and ask how often the Diviſor (7) can be had in 54? the Anſwer is 7 times; which put in the Quotient, and ſay, 7 times 7 is 49, from 54, and there reſts (5;) which put under a Line, as before. Laſtly, make a prick under the 2 in the Dividend, and place it to the Right-hand the Remainer 5, which makes 52, and ask how often the Diviſor (7) can be had in 52? the Anſwer is 7 times: which put in the Quotient, and multiply the Diviſor thereby; ſaying, 7 times 7 is 49; which deduct from the 52, and the Remainer is 3; and you have no more Figures in the Dividend. So the Work is finiſhed; and I find that 5377, is one ſeventh part of 37642.

```
7) 37642 (5377
   ....
   ----
    26
    --
    54
    --
    52
    --
     3  Remains.
```

The Rules for the laſt Operation, are thus contracted.

How often 7 in	Anſwer	7 times is	from	Reſts	To which, bringing down the next Figure, makes
37	5	35	37	2	26
26	3	21	26	5	54
54	7	49	54	5	52
52	7	49	52	3.	

Exam-

Example 2.] By the foregoing Method is the Number following divided, *viz.* 917640 by 9.

Dividend

Diviſor 9) 917640 (101960 Quotient.

17

86

54

(00) Remains.

Note, that when the Diviſor cannot be had in any part of the Dividend, that is brought down under a line: In ſuch caſe you are to put a Cypher in the Quotient, and bring down the next Figure in the Dividend; as in the Example 9 cannot be had in (1,) therefore (0) is put in the Quotient, and 7 brought down, which makes the 1 to be 17, *&c.*

Caſe 2.] To divide any Number by a Diviſor, conſiſting of 2, 3 or 4 places.

Rule.] It many times happeneth that in dividing a Summ by 2, 3, *&c.* Figures; That though you can have the firſt Figure of the Diviſor in the Dividend, yet you cannot have the reſt of the Figures of the Diviſor in the like Number of Figures of the Dividend; as if 316 be divided by 182, in this caſe 1 (the firſt of the Diviſor) can be had 3 times in 3, (the firſt Figure in the Dividend, but the reſt of the Figures in the Diviſor; *viz.* 82, cannot be had 3 times in 16 (the reſt of the Figures in the Dividend,) therefore you muſt make trial whether the Diviſor can be had one time leſs in the Dividend: As here; ſee if 182 can be had 2 times in 316, by multiplying (in your Mind, or on ſome piece of Waſte-paper) 182 by 2; which Product, if you find yet more than the Dividend 316, (as in this Example you will, and conſequencly cannot be deducted from it,) then take 182 but 1 time in 316, and put 1 in the Quotient. Take good notice of this, for it is the onely difficult thing in Diviſion; and that it may appear plain, take the Example following.

Let it be required to divide 75231 by 24?

To perform this:

1. Make a point under 5, becauſe you can deduct 24 from 75, otherwiſe the point muſt have been made under the third place.

2. Ask how often 2 can be had in 7? the Anſwer is 3 times.

3. Before you put the 3 in the Quotient, make trial in your mind, if the Product of 24 (the Diviſor) by 3, do not exceed 75, which you will find it does not.

4. Therefore put 3 in the Quotient, and ſay, 3 times 4 (the Unit's place of the Diviſor) is 12; which deduct from the 5, and 10 that you borrow (for you muſt always borrow ſo many Tens, as that the ſaid Product of the Figure in the Quotient and Diviſor may be deducted,) that is, from 15, and the Remainder is 3; which put under a line, and carry the 1 Ten you borrowed in your mind; ſaying, 3 times 2 (in the Diviſor) is 6, and 1 you borrowed is 7; from the 7 in the Dividend, and the Remainer is (0).

5. To the Remainer (3) bring down the next Figure in the Dividend, which is 2.

6. Ask how often 2 can be had in 3? or how often 24 (your Diviſor) can be had in 32? the Anſwer is 1.

7. Put 1 in the Quotient.

8. Multiply 24 (the Diviſor) by 1; ſaying, 1 time 4 is 4 from 12 (borrrwing 10) and there reſts 8; which put under the line, ſaying, 1 time 2 is 2, and 1 borrowed is 3, from 3, and the Remainer is (0).

24) 75231 (3134	
	Remains 32 Brought down.
	Remains 83 Brought down.
	Remains 111 Brought down.
	15 Remainder.

9. To the Remainer 8, bring down the next Figure in the Dividend, which is 3, (always making a point under the Figure you bring under the line for the reaſon aforeſaid) ſo have you 83; enquire therefore,

10. How often 2 the firſt Figure in the Diviſor toward the Left-hand can be had in 8, the Anſwer is 4 times: but if you make trial, you

you will find the Product of 24 by 4 to exceed 83; ſo that you can have but 24, 3 times in 83.

11. Put 3 therefore in the Quotient, as you ſee in the Example.

12. Multiply 24 the Diviſor by 3; ſaying, 3 times 4 is 12, from 13 (borrowing 10 to add to the 3, laſt brought down) and there remains 1: which put under the line, as you ſee; ſaying, 3 times 2 is 6, and 1 borrowed is 7; from 8, and there remains 1: which being in the Ten's place, makes Eleven.

13. To this 11 bring down the laſt Figure from the Left-hand in the Dividend, *viz.* (1) and you have 111.

14. Enquire how often 24 (the Diviſor) can be had in 111, or how often 2 in 11, (becauſe 111 is 1 place more than 24,) the Anſwer is but 4 times; for if you take it 5 times, you cannot deduct 5 times 24 from 111.

15. Multiply 24 the Diviſor by the Figure you put in the Quotient, which is by 4; ſaying, 4 times 4 is 16, from 21, (borrowing 2 Tens to add to the 1 in Unit's place) and there reſts 5; and carry 2, and 4 times 2 in the Diviſor is 8, and 2 borrowed is 10, from 11 the laſt Remainer, and there remains 15: So the Work being finiſhed, I find that 24 is contained in 75231, 3134 times; which I have made ſo plain (proceeding ſtep by ſtep) that any one, though of ordinary Capacity, may underſtand it; and by it any other of the like Nature, though the Diviſor conſiſts of never ſo many Figures: Take one other Example of this Caſe.

Let it be required to divide 319462 by 548?

548) 319462 (582

4546

1622

526 Remainer.

By the Rules foregoing, this laſt Operation will be performed as followeth, being contracted.

How often 548 in { 31194 / 4546 / 1622 } Anſwer { 5 / 8 / 2 }

5 Times:
8 is 40, from 44, reſts — 4
4 is 20, & 4 is 24, from 29, reſts — 5
5 is 25, & 2 is 27, from 31, reſts — 4

Remains 454: To which bring the 6, and enquire.

8 Times:
8 is 64 from 66, reſts — 2
4 is 32, and 6 is 38, from 44, reſts — 6
5 is 40, and 4 is 44, from 45, reſts — 1

Remains 162: To which bring the 2, and enquire.

2 Times:
8 is 16 from 22, reſts — 6
4 is 8, and 2 is 10, from 12, reſts — 2
5 is 10, and 1 is 11, from 16, reſts — 5

Remainer 526

Caſe 3.] When Cyphers poſſeſs the firſt, ſecond, third, *&c.* places of the Diviſor, how to abreviate the Work.

Rule.] As many Cyphers as you have in the Diviſor toward the Right-hand; ſo many Figures ſeparate (toward the Right-hand of the Dividend) from the reſt by a point or daſh with the Pen, and divide the remaining Figures toward the Left-hand in the Dividend, by the ſignificant Figures in the Diviſor, leaving out the Cyphers: See the Operation following.

1562900)

1562900) 137428120 (87

123961

1455820 Remains to be divided into 1562900 parts, which will be leſs than a Unit.

EXAMPLE 2.

197281000) 5171624102350 128 (26214506

1226004

423181

286190

889092

999683

132785

1327850

144164 128 Remains to be divided into 197281000 Parts.

EXAMPLE 3.

100) 3654 (36

54 Remainer to be divided by 100.

Note, that when the Diviſor is a Unit with Cyphers, as this laſt Example; then if you ſeparate ſo many Figures from the Right-hand of the Dividend, as there are Cyphers toward the Right-hand in the Diviſor (as was taught before) that part of the Dividend toward the Left-hand of the Daſh is the Quotient, and that to the Right-hand is the Remainer; As in this Example, you ſee 36 is the Quotient, and 54 the Remainer; becauſe when the Cyphers are cut off the Diviſor, there remains onely 1 to divide by; and it has been taught before, that no Number is made leſs by dividing by 1.

§. 2. *The*

§. 2. *The Manner of working Diviſion explained, and the Reaſon of it ſhewed.*

The two great Difficulties that are in Diviſion, are,

1. That when a Number is to be divided by another, conſiſting of ſeveral Degrees or Places of Figures, it cannot be known without Trial, how often the Diviſor can be had in the Dividend.

2. The ſubſtracting the ſeveral Products made of the Quotient, and Diviſor from the Left-hand of the Dividend, ſeems incoherent with the Rules of Subſtraction, of deducting Unit's place from Units, Ten's place from Tens, *&c.*

To explain and remove both which Difficulties, take the Example and Rules following, where the whole Work of Diviſion is made plain, and eaſie to be underſtood by a mean Capacity.

The Example I make uſe of ſhall be to divide 19467281 by 426?

The Work of Diviſion explained.

Products of the Diviſor.			
by 1 = 426)	19467281	(40000	=Firſt Quotient.
	17040000		
by 2 = 852	2427281	5000	=Second Quotient.
by 3 = 1278	2130000		
by 4 = 1704	297281	600	=Third Quotient.
by 5 = 2130	255600		
by 6 = 2556	41681	90	=Fourth Quotient.
by 7 = 2982	38340		
by 8 = 3408	3341	7	=Fifth Quotient.
by 9 = 3834	2982		
(Rem. 359)		45697	= The Summ of theſe Quotients, which is the true General Quotient.

In

In this Example,

1. I have made Products of the Diviſor, multiplying it by the ſeveral Digits againſt which the ſaid Products ſtand.

2. As is uſual I prick under the 6 in the Dividend, becauſe I can take the Diviſor from the 4 firſt Figures toward the Left-hand of the Dividend.

3. I conſider what place the firſt Figure in the Quotient toward the Left-hand will poſſeſs, which is always the ſame with the Figure, under which the firſt Point or Prick is made, and in this Example is Tens of Thouſand's place; ſo that what Figure ſoever is firſt put in the Quotient, is ſo many Tens of Thouſands.

4. I look in my 9 Products, which of them is next to, and leſs than the 4 firſt Figures to the Left-hand of the Dividend, and find the Product 1704 to be next; right againſt which, in the Series of Digits, ſtands 4; wherefore I put 4 in the Quotient, which is 40000, becauſe (as was ſaid in the laſt ſtep) the Quotient will have 5 Places.

5. I multiply the ſaid 1704 by 10000, becauſe the 4 is in that place, or the Diviſor by 40000, and the Product is 17040000, which (according to the true Rules of Subſtraction) is to be taken from the whole Dividend, and the Remainer (as in the Example) is 2427281.

6. I look as before, which of the 9 Products is next to, and leſs than the 4 firſt places toward the Left-hand of my new Dividend 2427281 (becauſe none of the Products can be had in 3 places,) and I find 2130; right againſt which ſtands the Digit 5, which muſt be 5000, becauſe it is to ſtand in the Thouſand's place of the Quotient; where having placed it, multiply (as before) the 2130 by 1000, or the Diviſor by 5000, and deduct the Product from the new Dividend 2427281, proceeding with the reſt of the Figures till nothing, or a Number leſs than my Diviſor remain: which done,

7. I ſumm up the 5 Quotients as in the Example, which make the General Quotient 45697; and ſo the Work is ended.

§. 3. *The Demonſtration of Diviſion.*

The deſign of Diviſion is to diſcover how often the Diviſor is contained in the Dividend; whence it neceſſarily follows, That the Quotient contains 1, ſo often as the Dividend contains the Diviſor; And if the Quotient contains Unity as often as the Dividend does the Diviſor,

Divisor, it follows from the 5th Definition to the 5th Book of *Euclid's Elements*, That the Quotient is in proportion to 1, as the Dividend is to the Divisor; and consequently by the 16th of the 6th of *Euclid's Elements*, the Product of a true Quotient, multiplied by the Divisor, is equal to that of Unity by the Dividend; and all Quotients, having these Affections, are therefore true Quotients, and not otherwise.

Example.] If 144 be divided by 6, the Quotient arising (by the foregoing Rules for Division) shall be 24.

For the Quotient 24 contains 1, so often as 144 contains 6; and consequently by the Definition above.

$$24.\ 1 :: 144.\ 6.$$

i. e. As 24 is in proportion to 1; so is 144 to 6.

And by the said 16th of the 6th *Euclid*,

$$24 \times 6 = 144 \times 1.$$

i. e. The Rectangle or Product of the 2 Extreams 24 by 6, is equal to that of the 2 mean or middle Numbers 144 by 1. So that 24 having these Affections, is the true Quotient of 144 by 6.

The Result of this Arithmetical Division is the same with the Geometrical, mentioned by Mr. *Williams*, in the Use of the 44 Prop. of *Euclid's Elements*.

§. 4. *The Proof of Division.*

Division may be proved by dividing the Dividend by the Quotient, and the Quotient will be your former Divisor: Or, you may prove it as is more usual) by Multiplication; for if you Multiply the Quotient and the Divisor together, the Product will be equal to your Dividend.

To instance in the Numbers following: If 1728 be divided by 12, the Quotient will be 144; and if, for proof, you divide 1728 by 144, the Quotient will be your former Divisor (12:) Or, if you multiply 144, the Quotient, by 12, the Product will be 1728: See the Work.

```
12)  1728   (144 Quotient } Multiply
     ...     12 Divisor  }
     ----    ---
      52     288
     ----    144
      48     ---
     ----    1728 The Dividend for proof.
```

Rem. 0.

Or

Or thus by Diviſion:

144) 1728 (12 The former Diviſor.
..
288
o Rem.

§. 5. *The Proof of Multiplication.*

The onely true way to prove Multiplication, is by Diviſion; for if you divide the Product by either of the Factors, the Quotient will be the other.

Example.] In the Example of the ſecond Caſe of this Chapter, 3484 being multiplied by 9, produceth 31356: And if 31356 be divided by 9 the one Factor, the Quotient is the other Factor; as in the Example.

9) 31356 (3484 Quotient.
....
43
75
36
o Remains.

Some Authors have taught to prove Multiplication, by taking the Nines out of the Factors ſingly, and multiplying the Remainers together, and taking the Nines out of the Product, noting that Remainer; then taking the Nines out of the firſt Product, and if the Remainer be equal to the forementioned, they conclude the Work to be right: but that does not at all follow, for by this Rule you may prove a Thouſand falſe Products as true ones.

Example.] Admit 3765 were to be multiplied by 58, the true Product is 218370; but if you ſuppoſe the Product 398370, (which is 180000 too much,) or 245370, (which is 27000 too much,) they will both prove right according to this Method; nor is there any other Method to prove Multiplication by, ſo true and conciſe as by Diviſion; though 'tis indeed needleſs to prove every Summ you work, by any Method, provided you be carefull in the Operation; or it may not be amiſs if your Work is great, to run it over twice very carefully; and if you find both times agree, 'tis to be ſuppoſed your Work is right.

Reduction

Is a Rule Consisting of two Parts viz.r

The Reducing of a Number from a greater to a lesser Denomination, as pounds into Shillings, Hundreds into Pounds, Yards into Feet; &c. which is called Reduction Descending and is performed by

Multiplication

The Reducing of a Number from a lesser to a greater Name or Denomination, as Feet into Yards, Gallons into Barrells Farthings into Pounds; &c which is called Reduction Ascending & is performed by

Division

So that all Questions in Reduction are resolved either by Multiplication or Division or both, wch shall be further Explained by the Questions following

Sect. 2.

Caſe 1.] WHen a Number of one Denomination is given to be reduced into a leſſer Denomination.

Rule.] Multiply the given Number by ſuch a Number of Units of the inferior Denomination into which you would have the Number given reduced, as are contained in a Unit of the Denomination which is given, and the Product is the Anſwer.

Example 1.] In 476 Pounds, how many Farthings?

476 Pounds
960 The Farthings in *l.* 1 } Multiply

2856
4284

456960 Farthings for Anſwer.

Example 2.] In 87 Hundred Weight, how many Pounds?

87 Hundred
112 Pounds in one Hundred } Multiply

174
87
87

9744 Pounds for Anſwer.

Example 3.] In 527 Ells Flemiſh, how many Quarters of a Yard, each Ell being three Quarters of a Yard?

527 Ells
3 Quarters of a Yard in an Ell } Multiply

1581 Quarters of a Yard for Anſwer.

Example 4.] In 328 Bales of Dowlaſs, how many Pieces?

328 Bales
3 Pieces in a Bale } Multiply

984 Pieces for Anſwer.

Example 5.] In 484 Groſs of Tape, each Groſs 12 Dozen, each Dozen 2 Pieces, and each Piece 36 Yards, how many Yards?

484 Groſs
12 Dozen in a Groſs } Multiply

968
484

5808 Dozen in 484 Groſs
72 Yards in a Dozen } Multiply

11616
40656

418176 Yards for Anſwer.

Caſe 2] When it is required to reduce Numbers of divers Denominations, into the loweſt Denomination.

Rule.] Work as in the laſt Caſe; but if you have any Number of the next inferior Denomination to that you are reducing, add ſuch Number to the Product.

Example 1.] In 364*l.* 05*s.* 5*d.* how many Pence?

l. *s.* *d.*
364: 05: 5:
20: The ſhillings in a pound } Multiply and Add the 5 *s.*

l. *s.*
7285 Shillings in 364: 05: } Multiply and Add the 5 *d.*
12 Pence in a ſhilling

14575
7285

l. *s.* *d.*
87425 Pence in 364: 05: 5: For Anſwer.

In the laſt Example in reducing the pounds, ſay, (0) times 4 (in the pounds) is (0), but 5 (in the ſhillings) is 5 ſhillings; then ſay, 2 times 4 is 8, *&c.* And when you come to the ſhillings, ſay, 2 times 5 ſhillings is 10, and 5 in the pence place is 15 pence, put down 5, and

and carry 1, *&c.* Note that if you had any think in the Ten's place, either in the ſhillings, pence, *&c.* you muſt add them when you multiply by the Figure in the Ten's place of the Multiplier.

Example 2.] In 48 *l.* 17 *s.* 11 *d.* 2 *q.* how many Farthings?

l.	*s.*	*d.*	*q.*	
48:	17:	11:	2:	
20: The ſhillings in a pound				} Multiply and Add 17 *s.*
		l.	*s.*	
977 Shillings in		48:	17:	} Multiply, adding the 11 *d.*
12 Pence in a ſhilling				
1955				
978				
		l.	*s.*	*d.*
11735 Pence in		48:	17:	11: } Multiply and Add 2 *q.*
4 Farthings in a Penny				
		l.	*s.*	*d.*
46942 Farthings in		48:	17:	11½ For Anſwer.

Example 3.] In 47 *C.* 2 *Qrs.* 24 ℔. how many Pounds?

C.	*Q.*	℔.	
47:	2:	24:	
4 Quarters in 112 ℔.			} Multiply and Add the 2 *Qrs.*
	C.	*Q.*	
190 Quarters in	47:	2:	} Multiply and Add the 24 ℔.
28 Pounds in 1 *Q.* of *C.*			
1524			
382			
	C.	*Q.*	℔.
5344 Pounds in	47:	2:	24 For Anſwer.

This Queſtion is more briefly reſolved, as in the Margent, by firſt putting down your 47 *C.* 4 times, and the 2 *Q.* 24 ℔. which is 80 ℔. in Ten's and Unit's place: ſo the Summ is the Anſwer.

C.	*Q.*	℔.
47:	2:	24
47		
470		
478		

5344 ℔ Anſwer.

§. 3. *Re-*

§. 3. *Reduction Aſcending.*

To reduce Numbers from a leſſer to a greater Denomination.

Caſe 1.] When the Number given is to be reduced to the next ſuperiour Denomination.

Rule.] Divide the ſaid given Number by ſuch a Number of Units of the Denomination given, as make a Unit of the next ſuperiour Denomination, and the Quotient is the Anſwer.

Example 1.] In 984 Pieces of Dowlaſs, how many Bales, each 3 Pieces? See the Operation.

3) 984 (328 Bales for Anſwer.
8
24
0

Example 2.] In 9744 Pounds, how many Hundreds?

112) 9744 (87 Hundred for Anſwer.
784
0

Caſe 2.] When a Number is to be reduced to a Denomination higher than the next ſuperior Denomination.

Rule.] Divide the given Number, as before, by ſuch a Number of Units of the Denomination given, as makes a Unit of the next higher Denomination, and note the Remainer. Then divide that Quotient by ſo many Units of that Name or Denomination, which it is of as makes a Unit of the next higher Denomination to the ſaid Quotient. *&c.* noting the Remainers, as in the Examples following.

Exam-

Example 1.] In 87425 Pence, how many Shillings and Pounds?

	d.	*s.*	*l.*
12)	87425	(7285	(364
	····20)	···	
	34	12	
	102	8	
	65	05 *s.* Rem.	

5 *d.* Remains.

	l.	*s.*	*d.*
Anſwer	364:	05:	05:

Example 2.] In 5244 ℔. how many Quarters, and Hundreds?

	℔.	*Q.*	*C.*
28)	5344	(190	(47
	··· 4)	··	
	254	30	

Rem. (℔ 24) (2) Quarters remains.

	C.	*Q.*	℔.
Anſwer	47:	2:	24

Example 3.] In 418176 Yards, how many Groſs of Tape? Divide the given Number by 72, and that Quotient by 12: for Anſwer; becauſe 72 Yards is 1 Dozen, and 12 Dozen 1 Groſs.

	Yards	Dozen	
72)	418176	(5808	(484 Groſs for Anſwer.
	·····12)	·	
	581	100	
	576	48	

0 Rem. 0 Rem.

Theſe Queſtions are the Converſe of thoſe in Reduction Deſcending, and may ſerve for Proof of them; and likewiſe to ſhew the Learner the Nature and Effects of the Rules.

§. 4. *Re-*

§. 4. *Reduction Aſcending and Deſcending.*

Queſtions performed by Multiplication and Diviſion, are theſe that follow; and ſuch like.

Example 1.] In 874 Ells Flemiſh, how many Ells Engliſh?

Multiply the given Number by 3, and divide the Product by 5, and the Quotient is the Anſwer.

874 Ells Flemiſh
3 Quarters of a Yard in 1 Ell } Multiply

5) 2622 (524$\frac{2}{5}$ Ells Engliſh for Anſwer.

12

22

2 Rem. Which, placed over the Diviſor, is $\frac{2}{5}$.

874
6

Anſ. 524$\frac{6}{10}$ or $\frac{3}{5}$.

Or Multiply by 6, and Divide by 10; which is more brief.

Note, that the Remainer is always of the ſame Denomination with the Dividend.

Example 2.] In 46 *C.* of Cotton-Wool, how many Pounds, and what the Price, at 15 *d.* a Pound? Anſwer 322 *l.*

46 *C.*
46
46
46

5152 Pound
15 Pence for 1 Pound } Multiply

25760
5152

77280 Pence for Anſwer; which reduce into Pounds as before taught, and *per* Margent.

d.	*s.*	*l.*
12) (77280	(6440	(322
	20)	
52	4	
48	4	
Remains 0	0 Rem.	

Exam-

Example 3.] In 846 Dollars, each 4 *s.* 6 *d.* how many Pounds Sterling?

846 Dollars
54 Pence *per* Dollar } Multiply

3384
4230

12) 45684 *d.* (3807 *s.* (190 : 7 *l.* *s.*
20)
96 18
84 0 Remains

0 Remains.

Example 4.] To Reduce *Flemiſh* Money into *Engliſh*.

In 465 *l.* 13 *s.* 4 *d. Flemiſh*, how many pounds Sterling, at 33 *s.* 4 *d. Flemiſh*, for 1 pound Sterling? Anſ. 279 *l.* 8 *s.* Sterling.

Rule.] Divide the pence in 465 *l.* 13 *s.* 4 *d.* by the pence, in 33 *s.* 4 *d.* and the Quotient is the Anſwer. See the Work.

s. *d.*
33 4 465 13 4
12 20
9313 Shill. *Flem.*
400 12
111760 (279 *l.* Sterl.
400)
31
37
160 *l.* Sterl. rem. } Multiply
20
3200 (8 *s.* Sterl.
400)
0

Thus you may Reduce *Flemiſh* Money into *Engliſh*, let the price of a pound Sterling be reckoned any other Number of ſhillings, or ſhillings and pence *Flemiſh*; but when the price is as above (which is the true Value) you may perform the ſame by Multiplying the given Number by 3, and Dividing the Product by 5; for 400 *Flemiſh* pence is to 240 Sterling pence, as 5 is to 3.

l.	*s.*	*d.*	
465	: 13	: 4	*Flem.*
		3	
5) 1397	: 00	: 00	
279	: 08	: 00	Anſ.

Note, That *French* Lievers, Soulze and Deniers are Reduced into Deniers (or Pence) as the *Engliſh* and *Dutch* Money is, by Multiplying by 20 and 12.

Example 5. In 364 *French* Crowns, each $54\frac{1}{4}$ *d.* Sterling; how many pounds, ſhillings and pence Sterling?

Rule.] Multiply the given Crowns by 54 *d.* and the Product is 19656 *d.* to which add $\frac{1}{4}$ of 364 for the farthing, and the Summ is 19747 *d.* or 82 *l.* 5 *s.* 7 *d.* Sterling for Anſwer. But you will find a briefer way of performing theſe and ſuch-like Queſtions by the Rules of Practice, which will be of great uſe in Caſting up *French* Bills of Exchange.

Example 6.] In 1500 Pieces of Eight *Mexico*, each $52\frac{3}{8}$ *d.* Sterling: how many pounds Sterling?

Rule.] Multiply the 1500 by 52, and the Product is 78000 pence; then for the $\frac{3}{8}$ multiply the 1500 by 3, and divide the Product by 8, and the Quotient is $562\frac{1}{2}$ *d.* which add to the 78000 *d.* and you have the Anſwer $78562\frac{1}{2}$ *d.* Sterling, or 327 *l.* 6 *s.* $10\frac{1}{2}$ *d.* And this Rule is very uſefull in Caſting up Bills of Exchange to *Cadiz*, *Leghorn* and *Genoa*; but may be ſomething more briefly performed, as may all the reſt, by Decimals, or the Rules of Practice.

Example 7.] In 2900 Ducats, each $51\frac{7}{8}$ *d.* Sterling; how many pounds, ſhillings and pence Sterling?

Rule.] Multiply 2900 by 51, and the Product is 147900: Then multiply 2900 by 7, and divide the Product by 8, and the Quotient is $2537\frac{1}{2}$ *d.* which added to the 147900, the Summ is $150437\frac{1}{2}$ *d.* Sterling, or 626 *l.* 16 *s.* $5\frac{1}{2}$ *d.* This Example you will find uſefull in Caſting up Exchanges to *Venice*.

Exam-

Example 8.] In 2000 Millrees, each 6 *s.* 8½ *d.* how many pounds Sterling?

Rule.] Divide 2000 by 3, (becauſe 3 Six ſhillings and Eight-pences make 1 pound Sterling,) and the Quotient is pounds; to which add the pounds in 2000 Half-pence, as 4*l.* 3 *s.* 4*d.* to 666*l.* 13 *s.* 4*d.* and the Summ is 670*l.* 16*s.* 8*d.* for Anſwer; which Rule is uſefull in Caſting up Bills of Exchange from *Oporto*, or *Lisbon* in *Portugal*. But if the Price of a Millree, in the Courſe of Exchange, be reckoned any other Number of Shillings and Pence, you may Work either by the Rules of Practice following, or Reduce the Value of a Millree into its loweſt Denomination, and Reduce the Product of the Millrees thereby, into Pounds.

The Golden Rule

Is so called from it's extraordinary usefulness, not only in Arithmetical Questions, but in all parts of ye Mathematicks.

It is also called The Rule of Three, because there is always Three Numbers given to find out a Fourth, and it is properly called The Rule of Proportion, because ye first Number beares such Proportion to ye second, as ye third does to the fourth.

The designe of this Rule is to shew how to find a fourth Proportional Number by having three given Numbers, which is deducible from ye 16th prop: of ye sixth Book of Euclid's Elements. THE RULE IS

Multiply the 2d & 3d Numbers together, & devide ye Product by the first Number; and the Quotient thence arising is the 4th Number sought: or

Divide the 2d Number by the 1st, and Multiply the Quotient by the 3d, and the Product is the Number required. For ye 4th Number containes the 3d so often as the 2d containes the 1st, and this is called Direct Proportion.

ALL the Difficulty in this Rule conſiſteth in the right ſtating the three Numbers given; for when you have done that, you have only Multiplication and Diviſion, and the Work is performed: The Rule therefore for ſtating any Queſtion in this kind of Proportion is,

Rule.] Conſider that of the three Numbers given, you have always Two of one Denomination: And,

That Number which is of another Denomination, muſt be always placed in the ſecond Place; and to the Left-hand thereof muſt be placed that Number (of the Two of one Denomination) on which the Second has dependance, and the other Number muſt be placed next the Right-hand: As ſuppoſing it were required to know what the Intereſt of 75 pounds is at the rate of 8 Pound *per Cent. per Annum*, the Numbers will be ſtated thus:

L. prin.	*L. int.*	*L. prin.*
100 :	8 ::	75.

In this Example there are two Numbers that are Principal Mony, and one that is Intereſt; therefore the Intereſt (according to the Rule) muſt ſtand in the Middle, or ſecond Place; the Principal on which the Intereſt dependeth, *Viz.* 100 (8 *l.* being the Intereſt thereof) muſt ſtand in the firſt Place toward the Left-hand, and the other Principal on which the fourth Number (which is the Number ſought for) dependeth, muſt poſſeſs the firſt Place toward the Right-hand.

By theſe Rules foregoing, you may with Eaſe and Certainty perform any Operation in Direct Proportion, and for your farther Information take the Examples following.

Example 1.] If the Intereſt of 100 *l.* for one Year be 8 *l.* what is the Intereſt of 75 Pound for the ſame Time?

L. P.	*L. I.*	*L. P.*
100 : :	8 :	75
		8
		——— *l.*
100)	600	(6 For Anſwer.

Exam-

Exgmple 2.] If 32 Rundlets of Brandy coſt 96 pounds, what will 4 Rundlets coſt at that rate?

Rund. *l.* *Rund.*
32 : 96 :: 4
4

32) 384 (12 lb Anſwer.
::
64
0 Remains.

Example 3.] If 12 Sacks of Cotton-wool coſt 184 *l.* what will 17 Sacks coſt?

Sacks *l.* *Sacks*
12 : 184 :: 17 :
17

1288
184

12) 3128 (260 *l.*
::
72
8 Pound remains
20 Shillings multiply

12) 160 (13 Shill.
:
40
4 Shillings remain
12 Pence multiply

12) 48 (4 Pence
0 Remains.

l. *s.* *d.*
260 : 13 : 4 Anſwer.

Note

Note that (as in the laſt Example) when any thing remains that is reducible to a lower Denomination; after it is ſo reduced, it muſt be divided continually by the firſt Number.

Caſe 2.] When any of the 3 Numbers given happen to be of divers Denominations.

Rule.] You may reduce them into the loweſt Denomination: And if your firſt Number require to be reduced, your Third muſt be reduced likewiſe into the ſame Denomination as the firſt: For the firſt and third Number, before you begin your Operation, muſt be always of one Name or Denomination.

Example 1.] If 17 Hogs-heads of Sugar coſt 320 *l.* 12 *s.* what will 5 of thoſe Hogs-heads be worth?

H-ds *l.* *s.* *H-ds*
17 : 320 : 12 :: 5
20

6412 Shillings
5 H-heads } Multiply

s. *l.* *s.* *d.* *q.*
17) 32060 (1885 (94 : 5 : 10 $2\frac{6}{17}$:
20)

150 | 8

146 0 Remains.

100

15 Shillings remains
12 Pence in a ſhilling } Multiply

30
15

17) 180 (10 Pence

10 Pence remains
4 Farthings } Multiply

17) 40 (2 Farthings

6 Farthings remains to be divided by 17.

Note

Note that when you have multiplied the second and third Numbers together, and divided the Product by the First, the Quotient is of the same Denomination, as the second Number is; after you have reduced it (as in the last Example) into its lowest Denomination given.

Exam. 2.] If 4 C. 1 Q. 24 lb of Sugar cost 14 *l.* what will 18 C. cost?

C. Q. lb *l.* *C.*

4 : 1 : 24 : 14 :: 18

4 — 18

42 — 18

45 — 18

500 lb — 2016 lb of Sugar } Multiply
14 *l.* Sterling }

8064

2016

l. *s.* *d.* *q.*

500) 28224 (56 : 8 : 11 : $2\frac{40}{500}$ Answer

32

224 Pound remains } Multiply
20 Shillings in 1 *l.* }

500) 4480 (8 Shillings

480 Shillings rem. } Multiply
12 Pence }

96

48

500) 5760 (11 Pence

7

260 Pence rem. } Multiply
4 Farthings }

500) 1040 (2 Qrs

40 Farthings remains to be divided by 500. Note

Note farther, that what Farthings remains to be divided by the common Diviſor (as in the laſt Example) becauſe you can reduce them into no lower Denomination, you may place them over your Diviſor, as Fractions of a Farthing, which ſhall be explained when we come to vulgar Fractions, *&c.*

Caſe 3.] When the firſt Number of the 3 given, is but a Unit, the Operation is performed by Multiplication onely.

Example 1.] If I give 15 Shillings for a Pound of Thread, what will 250 lb coſt me at that Rate?

lb.	*s.*	lb.
1:	15::	250
		15
		125
		25

3750 Shillings Anſwer, or *l.* 187: *s.* 10:

Example 2.] At 14*l.* 10*s.* 6*d. per* Bagg of Hopps, what coſt 55 Baggs?

Bag.	*l.*	*s.*	*d.*	*Baggs*
1:	14:	10::	6::	55.
	20			
	290 Shillings			
	12			
	3486 Pence	}	Multiply	
	55 the 3d. Numb:	}		
	17430			
	17430			
	191730 Pence Anſwer, or			*l.* 798: *s.* 17: *d.* 6

Caſe 4.] When the third Number of the 3 given (or that toward the Right-hand) is a Unit; ſuch Operation is performed by Diviſion onely; if the Number need no reducing.

Example 1.] If 40 Pieces of broad Cloth coſt 590 *l.* what wil one Piece coſt?

Pieces. *l* *Pieces.*
40 : 590 :: 1
40) 590 ($14\frac{3}{4}$ *l.* or 14 *l.* 15 *s.* Anſwer.

19

3 Pounds remains.

Example. 2.] If 14 Hogs-heads of Tobacco, poize Nett 9285 ℔, coſt 619 *l.* 10 *s.* what will one Pound coſt at that Rate?

℔. *l* *s.* ℔. *s.* *d.* *q.*
9285 : 619 : 20 : 10 :: 1. Anſwer 1 : 4 : $0\frac{480}{9285}$

9285) 12390 *s.* (1 Shilling

3105 Shillings rem.
12

9285) 37260 *d.* (4 Pence

120 Pence remains
4

480 Farthings remains to divide by 9285.

§. 2. *The Single Rule of Indirect Proportion.*

Whereas in the former Section of Direct Proportion, the fourth Number was always proportionably greater than the Third, as the Second was greater than the Firſt: in this kind of Proportion, on the contrary, the greater the third Number is, the leſs is the Fourth, and the leſs the Third is, the greater is the Fourth; and it is therefore called Indirect or Reverſe Proportion.

And whereas in the laſt Section the Product of the Firſt and Fourth is equal to that of the Second and Third; in the Proportion I am now treating of, the Product of the Third and Fourth is equal to that of the firſt and ſecond Numbers; which may ſerve as a Proof for both.

The

The Method of ſtating any Queſtion in this Proportion, is the ſame with Direct: but to find the Number required, this is the

Rule.] Multiply the firſt and ſecond Numbers toward the Left-hand together, and divide the Product by the Third, and the Quotient ariſing is the Anſwer.

A Rule to know whether a Queſtion propoſed be to be Anſwered by the Rule of Proportion, Direct or Indirect.

Having ſtated the three Numbers given as is formerly directed, calling the middle Number the mean, and the two outermoſt Numbers, the extreams: Conſider from the Nature of the Queſtion, whether the third Number requires more or leſs than the ſecond Number; if it requires more, the leſſer Extream is to be your Diviſor; but if the Third require leſs, the greater Extream is your Diviſor: Now ſo often as this leſſer, and the greater Extream happeneth to be the third Number, or that next the Right-hand ſo often is your Proportion Indirect; but when they are the firſt Number, the Proportion is Direct: an Example or two will make it plain.

Example 1.] If a Board is 9 Inches broad, how much in length will make a ſquare Foot? Say, If 12 Inches broad require 12 in length, to make a ſquare Foot, what length will 9 Inches broad require? It will require more length, becauſe there is leſs breadth. See the Work.

In. br. *long.* *In. br.*
12 : 12 : 9
12

9) 144 (16 Inches in length for Anſ.
54
0

Example 2.] How many Yards of Silk 3 Quarters broad, will line 9 Yards of broad Cloth, that is 2 Yards broad?

Say, If 6 Quarters wide require 9 Yards in length, what will 3 Quarters wide require in length?

Qrs. br. *Yar. long.* *Qrs. br.*
6 : 9 : 3
6

3) 54 (18 Yards in length for Anſwer.
24
0

Example 3.] If when the price of a Buſhel of Wheat is 6*s.* 3 *d.* the Penny-loaf weigheth 9℥; what muſt the Penny-loaf weigh, when the price of a Buſhel of the ſame Wheat is 4*s.* 6*d.* The Queſtion is thus ſtated.

s.	*d.*	℥.	*s.*	*d.*
6 :	3 :	9 :	4 :	6
12			12	
75 Pence		54 Pence your Diviſor		

9

54) 675 (12 ℥

135

27 ℥ remains
20 Penny-weight } Multiply

54) 540 (10 Penny-weight

0 Remains

	l.	℥.	*p-w.*
Anſwer	1 :	00 :	10

§. 3. *The Double Rule of Direct Proportion.*

In this kind of Proportion there are 5 Numbers given to find a ſixth, which ſixth will bear ſuch Proportion to the Product made of the fourth and fifth Numbers, as the third Number does to the Product made of the firſt and ſecond Numbers.

The Rule for ſtating the five Numbers given, is:

Make that the third Number from the Left-hand, which is of the ſame Denomination with the Number ſought; then place the two Numbers in the firſt and ſecond Place to the Left-hand, which are conjunctive in the Sence of the Queſtion to the Third, and the other two Numbers in ſuch Order, that the Fourth may be of the ſame Denomination with the Firſt, and the Fifth of the ſame with the Second: which done,

Rule.] Divide the Product of the 3 next the Right-hand, multiplied one in another, by the Product of the two Firſt to the Left-hand, and the Quotient is the ſixth Number ſought for.

Exam-

Example.] If 100 *l.* in Twelve Months gain 6*l.* what will 500 *l.* gain in Eight Months?

L. prin.	*Month.*	*L. int.*	*L. prin.*	*Month.*
100:	12:	6:	500:	8
12			6	
Diviſor=1200			3000	
			8	

1200) 24000 (20 Pound Anſwer.

00 Remains.

By the Work you may perceive that 500 *l.* will gain 20 *l.* in 8 Months, at the Rate of 100 Principle, gaining 6*l.* Intereſt in 12 Months.

This Queſtion, or any other of this Nature, may be reſolved at two Single Rules of Proportion, thus: If 100*l.* require 6 *l.* what will 500*l.* require? the Anſwer is 30 *l.* Then ſay, If 12 Months require 30*l.* what will 8 Months require? the Anſwer (as before) is 20 *l.*

§. 4. *The Double Rule of Indirect Proportion.*

The Rule for Stating your Queſtion.

Place the three firſt Numbers toward the Left-hand in the ſame Order you did in the laſt Section; and for the other Two, place that the Fourth, which is of the ſame Denomination with your ſecond Number, and conſequently the other next the Right-hand: So will your firſt and laſt, *viz.* that required be of one Denomination, your ſecond and fourth of another, and your third and fifth of another. And,

The Rule for performing the Operation, is:

Divide the Product of the firſt, multiplied in the ſecond; and that Product in the fifth, by the Product made of the third and fourth, and the Quotient is the Anſwer.

Exam-

Example.] What Principle will raiſe 20 *l.* in Eight Months at 6 *per Cent. per Annum*?

L. prin.	*Month.*	*L. int.*	*Month.*	*L. int.*
100 :	12 :	6 :	8 :	20
12		8		
1200		48 = Your Diviſor		
20				
L. in.				

48) 24000 (500 Quotient for Anſwer; which proves the laſt Operation.

0 Remains.

§. 5. *The Reaſon and Demonſtration of the Single Rule of Direct Proportion.*

If 4 Numbers are Geometrically proportional, the Rectangle or Product made of the Means, is equal to that of the two Extreams from *Euclid. lib. 6. prop.* 16. from which I ſhall prove the Method for finding the fourth Proportional.

Example.] Admit 4 is in proportion to 12, as 18 is to a fourth Number unknown; for which put (*u*,) they will ſtand thus:

$$4 : 12 :: 18 . u$$

1. *i. e.* As 4 is in proportion to 12, ſo is 18 to the unknown Number; then from the fore-mentioned Propoſition.

$$4u = 216$$

2. *i. e.* Four times *u* (which repreſents the unknown Number) the Product of the firſt and fourth is equal to 12 Times 18, *viz.* 216, the Product of the two Means: then it neceſſarily follows;

$$u = \tfrac{216}{4}$$

3. *i. e.* That (*u*) is equal to 216, divided by 4; for if 4 Times (*u*) is equal to 216, then one Time (*u*) muſt be equal to one fourth part of 216: And,

$$\tfrac{216}{4} = 54$$

4. Since (*u*) or the unknown Number, is equal to one fourth part of 216, and that $\frac{1}{4}$ part of 216 is equal to 54; therefore *u* is equal

equal to 54, which is the fourth Number ſought; and if you compare the ſeveral Steps, you will find the fourth Number to be diſcovered after the ſame Method given for finding it, at the beginning of this Chapter; which is by multiplying the ſecond and third Numbers together, and dividing the Product by the Firſt.

Or thus, from this *Axium.*

That the Fourth Number containeth the Third; ſo often as the Second does the Firſt.

Hence $\frac{12}{4} = \frac{u}{18}$ that is $\frac{1}{4}$ of 12 is equal to one 18th of *(u)*
Now $\frac{12}{4} = 3$ therefore $\frac{u}{18} = 3$

i. e. Twelve divided by 4, is equal to 3; therefore *u* divided by 18 muſt be equal to 3.

And if $\frac{u}{18} = 3$ then $3 \times 18 = u$

i. e. If *u* divided by 18 is equal to 3, then 3 Times 18 muſt be equal to *u*, and conſequently *(u)* is equal to 54, for 3 Times 18 is 54, as before.

§. 6. *The Demonſtration of the Single Rule of Indirect Proportion.*

By the Definition of this Rule in Section the ſecond foregoing, the Product of the firſt and ſecond Numbers, is equal to that of the Third and Fourth: from whence this Demonſtration.

$6 : 9 : 3 : u.$

Therefore by the Definition.

$6 \times 9 = 3 \times u$, or
$54 = 3u.$

i. e. The Rectangle of the two firſt Numbers 6 by 9, is equal to that of *u* by 3.

Now if $54 = 3u$, $u = \frac{54}{3}$.

i. e. If 54 is equal to three Times *(u)* then it follows that one Time *(u)* is equal to one third part of 54:

$\frac{54}{3} = 18$ Therefore
$u = 18$

i. e. One third of 54 being 18, therefore *u* is equal to 18, which was required; ſo the Definition is cleared.

By

By the ſame Rules may the Double Rules of Proportion be demonſtrated; but this Book being chiefly deſigned for the Practice of young Merchants; my deſigned Brevity in things ſpeculative requireth, that I paſs forward to what is more practical.

§. 7. *The Proof of the Rules of Proportion.*

Every kind of Proportion I have diſcourſed of, may have the Operations proved two Ways.

Caſe 1.] *Single Direct Proportion.*

When four Numbers are in Direct Proportion, the Product made of the Firſt and Fourth, is equal to that of the Second and Third; otherwiſe the Work is not rightly performed.

2*dly*, The ſecond Way is thus: As the fourth Number is to the Third, ſo is the Second to the Firſt; otherwiſe the Work is not right.

Caſe 2.] *Single Indirect Proportion.*

When four Numbers are in an Indirect Proportion; the Rectangle of the Firſt and Second, is equal to that of the Third and Fourth; otherwiſe there is an Errour in the Work.

2*dly*, Thus: As the Firſt to the Third, ſo is the Fourth Number to the Second in a Direct Proportion; otherwiſe the Operation is not rightly performed.

Caſe 3.] *Double Direct Proportion.*

When a ſixth Number is found in a Direct Proportion; the Rectangle of the Firſt, Second and Sixth, is equal to that of the Third, Fourth and Fifth Numbers, if the Work is not Erroneous.

2*dly*, Thus: As the Product of the Fourth and Fifth Numbers is to the Sixth; ſo is the Product of the Firſt and Second to the Third, in a Single Direct Proportion.

Caſe 4.] *Double Indirect Proportion.*

When five Numbers are given, and a Sixth found in an Indirect or Reverſe Proportion, the Rectangle (provided the Work is ſtated by the Rules foregoing in the fourth Section of this Chapter) of the Firſt, Second and Fifth, is equal to that of the Third, Fourth and Sixth Numbers, if the Work is rightly performed.

2*dly*, Thus: As the Fifth Number is to the Product of the Third and Fourth, ſo is the Sixth to the Product made of the Firſt and Second, by one Single Direct Proportion.

§. 1. *Nota-*

CHAP. VIII.

Of Fractions.

§. 1. *Notation and Numeration of Vulgar Fractions.*

1. A Fraction is one or more Parts of a Unit or Integer, according as the ſame is divided.

2. Every Fraction conſiſteth of two Parts, *viz.* a Numerator and a Denominator.

3. The Denominator is placed (in Writing) below the line you write in, and ſheweth how many Parts the Integer, or Unit, is divided into.

4. The Numerator of a Fraction is (in Writing) placed above the line, and ſheweth how many of the ſaid Parts, expreſſed by the Denominator, are contained in the Fraction. For inſtance:

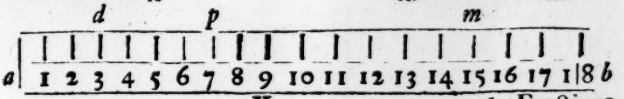
$\frac{3}{4}$ Numerator.
Denominator.

5. In reading Fractions, the Numerator is firſt mentioned, then the Denominator; as the Fraction above is read, three fourth Parts of any thing: *i.e.* The Denominator ſheweth, that the Integer is divided into four Parts; and the Numerator, that three of thoſe fourth Parts are contained in the Fraction: So by the ſame Reaſon

$\frac{1}{4}$ is one fourth Part,
$\frac{1}{2}$ is one half, or two fourth Parts,
$\frac{2}{3}$ is two third Parts,
$\frac{5}{6}$ is five ſixth Parts, *&c.* As in the following Table.

One Half, *&c.*	is $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}$
Two Thirds, *&c.*	is $\frac{2}{3}, \frac{2}{4}, \frac{2}{5}, \frac{2}{6}, \frac{2}{7}, \frac{2}{8}, \frac{2}{9}, \frac{2}{10}$
Three Fourths, *&c.*	is $\frac{3}{4}, \frac{3}{5}, \frac{3}{6}, \frac{3}{7}, \frac{3}{8}, \frac{3}{9}, \frac{3}{10}$
Four Fifths, *&c.*	is $\frac{4}{5}, \frac{4}{6}, \frac{4}{7}, \frac{4}{8}, \frac{4}{9}, \frac{4}{10}$
Five Sixths, *&c.*	is $\frac{5}{6}, \frac{5}{7}, \frac{5}{8}, \frac{5}{9}, \frac{5}{10}$
Six Sevenths, *&c.*	is $\frac{6}{7}, \frac{6}{8}, \frac{6}{9}, \frac{6}{10}$
Seven Eighths, *&c.*	is $\frac{7}{8}, \frac{7}{9}, \frac{7}{10}$
Eight Ninths, *&c.*	is $\frac{8}{9}, \frac{8}{10}$
And Nine Tenths	is $\frac{9}{10}$

For the whole line *a b*, being a Unit, divided into 18 equal Parts; the line *a d* is $\frac{3}{18}$, the line *a p* is $\frac{7}{18}$, the line *a m* $\frac{15}{18}$, &c.



6. Fractions are either proper or improper.

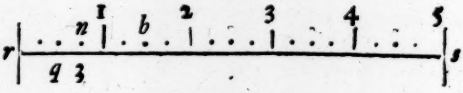
7. A Fraction properly ſo called, or a proper Fraction, is when the Numerator is leſs than the Denominator, as the Fractions foregoing.

8. An improper Fraction is when the Numerator is greater than the Denominator; as $\frac{7}{4}$, $\frac{28}{20}$, *&c.* Agen,

9. Fractions are either Simple or Compound.

10. A Simple Fraction is when the Fraction is immediately the Fraction of a Unit or Integer; as thoſe foregoing in the Table, *&c.*

11. A Compound Fraction is a Fraction of a Fraction, as $\frac{1}{2}$ of $\frac{1}{4}$ of a Pound Sterling, which is equal to 2 *s.* 6 *d.* or it is when a Unit is divided into any Number of Parts, and each of thoſe Parts are again ſubdivided into Parts; theſe laſt Parts are Compound Fractions, being the Fractions of the Fractions of a Unit. So the whole line (*r s*) being a Unit, the line *r* 1, is $\frac{1}{5}$, *r* 2 is $\frac{2}{5}$, becauſe the Unit is divided into five Parts; which five Parts being ſubdivided into four Parts, as under the line: I ſay, each of theſe laſt Parts are Fractions of a fifth Part; ſo the line *r q* is $\frac{1}{2}$ of $\frac{1}{5}$ of the line *r s*; the line *r* 3 is $\frac{3}{4}$ of $\frac{1}{5}$ of it, *&c.*



§. 2. *Reduction of Vulgar Fractions.*

It may ſeem ſtrange to ſome, that Reduction is here taught before Addition, *&c.* but 'tis neceſſary it ſhould be ſo, becauſe Reduction is made uſe of in all the ſubſequent Rules, to fit and prepare Fractions for Addition, Subſtraction, *&c.*

Caſe 1.] When a mixt Number is given to be reduced to an improper Fraction.

Rule.] Multiply the Integers by the Denominator of the Fraction, and to the Product add the Numerator, and place the Summ over the Denominator for a new Fraction.

Example.] Reduce $12\frac{3}{4}$ to an improper Fraction: See the Marginal Operation.

$12\frac{3}{4}$

Anſ. $\frac{51}{4}$

The

The Reaſon of this Rule:

If the Numerator and Denominator of a Fraction be alike, the Value thereof muſt be a Unit; ſo that if you Aſſign a Denominator to any whole Number that ſhall be Reduced to an improper Fraction, your Numerator muſt be the Product of the whole Number by that Denominator. Thus 1 being Reduced to ſuch Fraction, whoſe Denominator is 2; 2 times 1 is the Numerator, and 2 the Denominator, which is $\frac{2}{2}$ (or 1;) Becauſe, according to the Definition in the 5th Step of the laſt Section, the Unit is divided into two Parts, and there are two of thoſe Parts in the Fraction; and as many Units as there are in the Integral Part, ſo many times the Denominator muſt the Numerator be; becauſe 1 is $\frac{2}{2}$, 2 is $\frac{4}{2}$, *&c.* which Numerator, made of the Integral Part of the mixt Number, muſt be added to the Numerator of the Fractional Part, for the Reaſon mentioned in Addition of Vulgar Fractions.

Caſe 2.] When an improper Fraction is given to be Reduced to a whole or mixt Number.

Rule.] Divide the Numerator of the Fraction by the Denominator, and the Quotient is a whole Number; and if any thing remain, it muſt be placed over the Diviſor.

Example.] Reduce $\frac{51}{4}$ to a whole or mixt Number.

4) 51 ($12\frac{3}{4}$ Anſwer, which proves the laſt Caſe.

11

3 Remains.

The Reaſon of this Rule, is:

That ſo often as the Denominator can be had in the Numerator, ſo many Units does the Fraction contain, for $\frac{2}{2}$ is 1, $\frac{4}{2}$ is 2, $\frac{6}{2}$ is 3; ſo that $\frac{7}{2}$ muſt be $3\frac{1}{2}$, becauſe 2 can be had 3 times in 7, and 1 remains, which muſt be $\frac{1}{2}$, becauſe 1 is half of 2, and $\frac{3}{3}$, as I ſaid before, is a Unit or One.

Caſe 3.] When Fractions have different Denominators, and are to be Reduced to a common Denominator.

Rule.] Multiply the Numerator of each Fraction ſingly, into all the Denominators of the Fractions given, excepting its own, and the Product is a new Numerator; and if you multiply all the Denominators one in another, the Product is a common Denominator.

Example.] Reduce $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{7}$ to a common Denominator.

3 The Numerat. of the 2d.
3 The Denom. of the 1ſt.

9 The Product.
7 The Denom. of the 3d.

63 The 2d new Numerator.

2 The firſt Numerator.
4 The 2d Denominator.

8 Product. } Mult.
7 The 3d Denom. }

56 The firſt new Numerator.

Thirdly,

5 The Numerat. of the 3d. } Mult.
4 The Denom of the 2d. }

20 The Product. } Mult.
3 The Denom of the 1ſt. }

60 The 3d new Numerator.

Laſtly,

3 } Multiply
4 }

12 } Multiply } Denominators.
7 }

84 The common Denominator.

Now if you place each new Numerator over the common Denominator, you will have

$\left.\begin{matrix}\frac{56}{84}\\ \frac{63}{84}\\ \frac{60}{84}\end{matrix}\right\}$ Equivalent to $\left\{\begin{matrix}\frac{2}{3} & \text{The firſt Fraction given.}\\ \frac{3}{4} & \text{The ſecond Fraction.}\\ \frac{5}{7} & \text{The third Fraction.}\end{matrix}\right.$

The Reaſon of this Rule.

Since the end of this Rule is to make the Denominators alike, and the Numerators proportioned thereto, as thoſe given are in proportion. If therefore the Denominators are multiplied by any Numbers that will make the Products alike; and if the Reſpective Numerator be Multiply'd by the ſame Number you multiplied its Denominator, it will produce the ſame thing as this Rule produceth: As if I would Reduce $\frac{2}{3}$ and $\frac{3}{4}$ to a common Denominator; if I multiply the Denominator 3, by 8, and the Denominator 4, by 6, the Products will be each 24 for a common Denominator; and if the Numerator 2, be multiplied by the ſaid 8, and the 3 by the 6, the Products will be 16 and 18; ſo the Fractions in a common Denominator are $\frac{16}{24}$ and $\frac{18}{24}$, equal to $\frac{8}{12}$ and $\frac{9}{12}$, which would have been produced by the foregoing Rule. But ſince it would in ſome Caſes be tedious to find out Numbers, that multiplying the ſeveral Denominators would produce a common Denomi-

Denominator; it is therefore the moſt certain way of performing the ſame, to multiply the Denominators one in another for a common Denominator, as in the Inſtance laſt above, of $\frac{2}{3}$ and $\frac{3}{4}$, the 3 *x* by the 4, and the 4 by the 3, muſt produce each 12 for a common Denominator; and if you multiply, as before, each Numerator by the Number you multiplied its Denominator, the Products are new Numerators, proportioned to the common Denominator; as the ſeveral Numerators given are proportion'd to their reſpective Denominator.

Caſe 4.] To reduce a Fraction into its loweſt Term.

Rule.] Take $\frac{1}{2}$, $\frac{1}{3}$, or $\frac{1}{4}$, *&c.* of the Numerator and Denominator.

Example.] Reduce $\frac{56}{84}$ to its loweſt Terms:

Say half of 56 is 28, and $\frac{1}{2}$ of 84 is 42, then $\frac{1}{2}$, 28 is 14, and $\frac{1}{2}$ 42 is 21; and becauſe you cannot take half $\frac{14}{21}$, make trial if you can take $\frac{1}{3}$, *&c.* but ſince you can onely take $\frac{1}{7}$ of both; ſay the Sevens in 14 is 2, and the 7 in 21 is 3; ſo is the given Fraction equivalent to $\frac{2}{3}$, and proves the firſt Fraction in the laſt Caſe to be right: See the Work.

$\frac{56}{84}$ Take $\frac{1}{2}$ or $\frac{28}{42}$ Take $\frac{1}{2}$ or $\frac{14}{21}$ Take $\frac{1}{7}$ or $\frac{2}{3}$ Loweſt Term.

The Reaſon of the laſt Rule.

By the *Lemma* to the 16th Prop. of the 5th Book of *Euclid's Elem.* Two Numbers, howſoever different, if they are divided by one and the ſame Number, the Quotients will have like proportion one to another, as the Numbers given to be divided have to each other: As, $\frac{100}{1000}$ is equal to $\frac{1}{10}$; Becauſe if 100 the Numerator be divided by 100, the Quotient is 1; and 1000 the Denominator, divided by 100, the Quotient 10; which $\frac{1}{10}$, is equal to $\frac{100}{1000}$; becauſe as 100 is to 1000, ſo is 1 to 10; for $100 \times 10 = 1000 \times 1$.

There are other Rules for the performing the Work of the laſt Caſe, but none ſo proper for the young Merchant's Practice as that foregoing.

Caſe 5.] To reduce a Compound Fraction to a Simple one, equivalent to the Compound.

Rule.]

Rule.] Multiply all the Numerators one in another, for the Numerator of the Anſwer, and the Denominators one in another, for that of the Anſwer.

Example.] Reduce $\frac{1}{4}$ of $\frac{1}{12}$ of $\frac{1}{20}$ into a Simple Fraction.

The Product of the Denominators 4, 12, and 20, is 960, and the Product of 1, 1 and 1 is 1; ſo the Simple Fraction ſought for is $\frac{1}{960}$.

The Reaſon of the laſt Rule.

By the Definition of a Compound Fraction in the firſt Section of this Chapter, it is ſhewed, that ſuch a Fraction is nothing but the Subdiviſion of the Parts of a Unit; where, for inſtance, you have a Line ſuppoſed a Unit, divided into 5 parts, which repreſents the Denominator of that part of a Comp. Fraction always next the Right-hand in reading thereof; each of which 5 parts being again divided into 4 parts, 4 is the Denominator of that part of a Comp. Fraction next the Left-hand; each of which parts being $\frac{1}{4}$ of $\frac{1}{5}$ of the Unit (or whole Line) ſhews that there are 20 ſuch parts as that 4th, in the Line; which is the Reaſon why we always multiply the Denominators together (as 4 and 5) to Reduce the Fraction of a Fraction into the Fraction of a Unit, or a Compound to a Simple, which is all one. And the Reaſon of Multiplying the Numerators together, (as in $\frac{3}{4}$ of $\frac{2}{5}$ of the laſt foregoing Line *r s*) is, becauſe $\frac{3}{4}$ of $\frac{1}{5}$ (as *r n*) is but one half of $\frac{3}{4}$ of $\frac{2}{5}$; therefore $\frac{3}{4}$ of $\frac{2}{5}$ muſt be 2 times (*r n*) equal to (*r b*) or $\frac{6}{20}$ of the Line (*r s*;) for that which before the Subdiviſion of the Line, was $\frac{1}{5}$, is (now the whole Line is divided into 20) $\frac{4}{20}$; ſo that $\frac{3}{4}$ of $\frac{4}{20}$ is equal to $\frac{3}{20}$, and conſequently 2 times $\frac{3}{20}$ is $\frac{6}{20}$; which plainly ſhews why, if the Denominators are multiplied together for that of a Simple Fraction, the Numerators muſt likewiſe be multiplied together for the Numerator of the ſame Fraction.

Caſe 6.] To find the Value of any Fraction, whether the ſame be of Coin, Meaſure, Weight, *&c.*

Rule.] Multiply the Numerator of the Fraction by ſuch a Number of Units of the next inferior Denomination, as is equal to a Unit of the Denomination the Fraction is part of, and divide the Product by the Denominator, ſo the Quotient will anſwer your Queſtion; but if any thing remain, Reduce that to the next lower Denomination, and divide as before.

Exam-

Example.] What is the Value of $\frac{134}{146}$ of a Hundred Weight? See the Operation.

```
        134 Hundred                  } Multiply
          4 Quarters of Hundred      }
       ----
146)    536 (3 Quarters of Hundred
       ----
         98 Quarters remains         } Multiply
         28 Pound in a Quarter       }
       ----
        784
       196
       ----
146)   2744 (18 Pound
        ..
       ----
       1284
       ----
        116 Pounds remain            } Multiply
         16 Ounces in a Pound        }
       ----
        696
       116
       ----
146)   1856 (12 Ounces.
        ..
       ----
        396
       ----
        104 Ounces remains           } Multiply
         16 Drams in 1 Ounce         }
       ----
        624
       104
       ----
146)   1664 (11 Drams, 58/146
        ..
       ----
        204
       ----
         58
```

	Q.	lb.	℥.	dr.
Answer	03 :	18 :	12 :	11 $\frac{58}{146}$

The

The Reaſon of the laſt Rule.

The Reaſon of this Rule is plain; for ſuppoſe a Line, divided into 20 parts, the whole Line, as *(a b)* will repreſent 1 pound, and the 20 parts 20 ſhillings. Now ſuppoſe there is a Fraction given, of which you would find the Value as $\frac{3}{4}$ of a pound Sterling: Draw another Right Line of the ſame length with the former, and parallel thereto, as *(c d)* which divide (according to the Definition of a Fraction) into 4 parts, to repreſent your Denominator; and right againſt 3 of thoſe parts in this Line ſhall ſtand 15 in the Line of ſhillings; which ſhews, that $\frac{3}{4}$ of a pound Sterling is 15 *s.* and the ſame may be ſaid of any other Fraction; for as 4 (the whole Line *c d*, or Denominator of the Fraction given) is in proportion to 20 *s.* (the whole Line *(a b)*: So is 3 the Numerator or Number of parts in the Fraction given (as in the lower Line *(c r)* to 15 *s.* the Value of the ſaid Fraction given; And therefore do you multiply and divide as in the laſt Rule directed for.

Denom.		s.		Numer.	s.
4	.	20	: :	3 .	15

3

s.

4) 60 (15 Anſwer.

Caſe 7.] To Reduce Fractions of a lower Denomination to a higher.

Rule.] Conſider what Denomination your Fraction is of, and how many of that make a Unit of the next, *&c.* to the Denomination you would have your Fraction reduced to; then work as in the fifth Caſe of this Chapter.

Example.] Reduce $\frac{1}{5}$ of an Ounce Averdupoize into the Fraction of a Hundred Weight.

Ratio.]

Ratio.] 16 Ounces being 1 Pound, $\frac{1}{5}$ of an Ounce is $\frac{1}{5}$ of $\frac{1}{16}$ of a Pound; then I conſider that 28 Pound is a Quarter of a Hundred, and that 4 Quarters is 1 Hundred; therefore $\frac{1}{5}$ of an Ounce is,

$\frac{1}{5}$ of $\frac{1}{16}$ of $\frac{1}{28}$ of $\frac{1}{4}$ of a Hundred; which by the fifth Caſe foregoing is $\frac{1}{8960}$ of a Hundred.

Caſe 8.] When you would reduce a Fraction of a higher to a Fraction of a lower Denomination,

Rule.] Reduce the Numerator of the Fraction into that Denomination you would have your Fraction of, and place it over the Denominator given for a new Fraction.

Example.] Reduce $\frac{1}{8960}$ of a Hundred into the Fraction of an Ounce.

112 Pound
16 Ounces } Multiply

672
112

Product 1792 Ounces in the Numerator: ſo the Anſwer is $\frac{1792}{8960}$; which Fraction, in its loweſt Term, is $\frac{1}{5}$, and proves the laſt Caſe. See the Work.

$\frac{1792}{8960}$, $\frac{896}{4480}$, $\frac{448}{2240}$, $\frac{112}{560}$, $\frac{16}{80}$, $\frac{8}{40}$, $\frac{1}{5}$. Proof, or more brief by dividing the firſt by 1792.

Take $\frac{1}{2}$ Take $\frac{1}{2}$ Take $\frac{1}{4}$ Take $\frac{1}{5}$ Take $\frac{1}{7}$ Take $\frac{1}{8}$

Ratio.] The Reaſon of this Rule is grounded upon that of the 6th Caſe foregoing, (omitting Diviſion by the Denominator:) For in 1 *C.* or (112 *l.*) are 1792 Ounces, now ſuppoſing the Denominator 1792; $\frac{1}{1792}$ of a *C.* is juſt $\frac{1792}{1792}$ of an $\frac{1}{5}$, or 1 Ounce: So, by the ſame reaſon, the Hundred being, as in the Example, divided into 8960 Parts, each Part muſt be leſs than an Ounce; and to know therefore how much leſs, or what part of an Ounce the ſaid $\frac{1792}{8960}$ is, is no more than to ſee how many times 1792 is contained in 8960; for how much ſoever 1792, is leſs than 8960, ſo much muſt the Fraction want of being a Unit (as here of 1 $\frac{1}{5}$) by the Reaſon of the Rules to Caſes 1. and 2. So that 1792 being but $\frac{1}{5}$ of 8960, it follows that $\frac{1792}{8960}$, is but $\frac{1}{5}$ of an Ounce.

§. 3. *Addition.*

Caſe 1.] When a Simple Fraction is to be added to a Simple.

Rule.] If the Fractions are not in a common Denominator, reduce them to one by the third Caſe of the laſt Section; then add the Numerators together, and divide the Summ by one Denominator, and the Quotient is the Summ required; and if any thing remain, place it over the Diviſor.

Example.] To $\frac{2}{3}$, add $\frac{5}{6}$.

The Fractions in a common Denominator are,

$\frac{12}{18}$, $\frac{15}{18}$.

12 The Firſt Numerator.
15 The Second.

27 The Summ, which divided by 18, is $1\frac{9}{18}$, or $1\frac{1}{2}$ For Anſwer.

The Reaſon of the Rule foregoing.

The Reaſon why you are firſt to Reduce your Fractions to a Common Denominator, before you can know their Summ total, is; Becauſe the Agregate of moſt Fractions could otherwiſe never be diſcovered; for a Fraction is more or leſs, according as the Numerator is more or leſs than its Denominator; ſo the Numerators are only to be added. Now ſuppoſe (as in the foregoing Example) that $\frac{2}{3}$ is to be added to $\frac{5}{6}$ in one of theſe Fractions, the Unit is divided into 6 parts, and in the other into 3 parts; now if I ſhould add the Numerators together, they make 7; but of which of theſe parts, 'tis not known: But if the Fractions are Reduced to a Common Denominator, their Numerators will ſtill retain the ſame proportion to their Denominators; and when the Unit is divided in both Fractions into a like Number of parts, the Summ of thoſe parts contained in each Fraction, is the true Aggregate of both Fractions; ſo $\frac{1}{4}$ and $\frac{3}{4}$ is $\frac{4}{4}$. $\frac{7}{12}$ and $\frac{3}{12}$ is $\frac{10}{12}$: Or as in the 3 Lines following, which are of equal length, and ſuppoſed each a Unit; the 1ſt divided into 3, the 2d into 6 parts, are the Denominators given, and the Third Line is divided into 18 parts, (the Product of 3 and 6,) which is the Common Denominator; where right againſt $\frac{2}{3}$ (in the upper-

uppermoſt Line) you have $\frac{12}{18}$ in the loweſt Line; and againſt $\frac{5}{6}$ in the 2d Line you have $\frac{15}{18}$ in the loweſt; which ſhews plainly, that $\frac{2}{3}$ is $\frac{12}{18}$, and $\frac{5}{6}$ is $\frac{15}{18}$: Now the Summ of 12 and 15 parts of the loweſt Line is $\frac{27}{18}$, or one whole Line and a half; As in the Example.

Caſe 2.] When a mixt Number is to be added to a Mixt

Rule.] Work with the Fractional parts as before, and afterward add the Summ of the Fractions to the Summ of the Integers, and you have your Deſire.

Example.] To $1\frac{1}{2}$ add $74\frac{3}{5}$.

The Summ of the Fractions by the laſt Caſe is $1\frac{1}{10}$; which, added to 1 and 74, makes $76\frac{1}{10}$.

$1\frac{1}{10}$
1
74
} Add.

$76\frac{1}{10}$ The Summ required.

Or you may perform the Work by Reducing the given Numbers to improper Fractions, as in *Caſe* 1. of the laſt Section; and ſo proceeding, as in the firſt Caſe of this Section.

Caſe 3.] When a Compound Fraction is to be added to a Simple,

Rule.] Reduce the Compound Fraction to a Simple by the fifth Caſe of the laſt Section; then find the Summ by the firſt Caſe of this Section.

Example.] To $\frac{15}{42}$ add $\frac{3}{8}$ of $\frac{2}{3}$.

The Compound Fractions in a Simple are, $\frac{6}{24}$, or $\frac{1}{4}$.

The Common Denominator of $\frac{1}{4}$ and $\frac{15}{42}$, is as followeth:

$\frac{42}{168}$ and $\frac{60}{168}$.

The Summ of the Numerators is 102, and of the Fractions $\frac{102}{168}$ for Anſwer.

§. 4. *Subſtraction.*

Caſe 1.] When a Simple Fraction is to be deducted from a Simple.

Rule.] Reduce the Fractions to a Common Denominator, as before; then take the Numerator of the Subtrahend from the other, and place the Remainer over the Common Denominator, and you have the Difference ſought.

The Reaſon of this Rule is plain from what was ſaid of Addition, as to the Common Denominators; And if the Denominators are alike, the Difference between their Numerators, is the Difference between the Fractions; as may be proved, by adding that Difference to the Fraction ſubſtracted: As, $\frac{1}{4}$ from $\frac{3}{4}$, reſts $\frac{2}{4}$: for $\frac{2}{4}$ and $\frac{1}{4}$ is $\frac{3}{4}$.

Example.] From $\frac{3}{4}$, take $\frac{5}{12}$: See the Work.

36 The firſt Numerator. 48 The Common Denominator.
20 The 2d Numerator.

16 Difference. Anſwer $\frac{16}{48}$ or $\frac{1}{3}$.

Caſe 2.] When a Compound Fraction is to be deducted from a Simple.

Rule.] Reduce the Compound Fraction to a Simple, by the fifth Caſe of Section 2. then work as in the laſt Caſe.

Example.] From $\frac{13}{14}$, take $\frac{2}{3}$ of $\frac{8}{9}$.

The Compound Fraction in a Simple is $\frac{16}{27}$.

13	16	27
27	14	14
91	64	108
26	16	27

351 = The 1ſt Numer. 224 = The 2d Numer. 378 = The Com. Den.
224 Deduct.

127 Remains. So the Anſwer is $\frac{127}{378}$.

Caſe. 3.]

Caſe 3.] When a Simple Fraction is to be deducted from a whole Number.

Rule.] Deduct the Numerator from the Denominator, and place the Remainer over the Denominator; then deduct 1 from the integer, and place the Remainer before the remaining Fraction, and you have the Anſwer.

Example.] From 12, take $\frac{5}{8}$. The Anſwer is $11\frac{3}{8}$.

Or thus:

According to the Rules foregoing, place 1 under the 12, and ſo proceed as in the firſt Caſe of this Section; but the firſt way is the briefer.

Note, that the 1 borrowed from the 12 (in the firſt Method) is $\frac{8}{8}$; ſo that if from $\frac{8}{8}$ you take $\frac{5}{8}$, there reſts $\frac{3}{8}$.

§. 5. *Multiplication.*

Caſe 1.] When you are to Multiply a Simple Fraction by a Simple,

Rule.] Multiply all the Numerators one in another, for the Numerator of the Product, and likewiſe the Denominators for the Denominator of the Product.

Example.] Multiply $\frac{1}{2}$ by $\frac{2}{3}$: Anſwer $\frac{2}{6}$ or $\frac{1}{3}$.

The Reaſon of Multiplication of Fractions.

The Work of Multiplication of Fractions is different from that of whole Numbers, for the Product is always leſs than the Multiplicand, though 'tis always greater in whole Numbers; the former being the Multiplying of the parts into which a Unit is divided, which muſt needs make the parts produced leſs than thoſe given; the latter multiplying Units, muſt needs augment the Number; the former decreaſing the parts of a Unit to Infinite littleneſs; the latter augmenting the Number of Units *ad Infinitum*. Now the Reaſon of the Rule, is, That if any Fraction be multiplied by 1, it produceth the Fraction given; if by $\frac{1}{2}$, it produceth $\frac{1}{2}$ the Fraction given, *&c.* So that to multiply $\frac{3}{4}$ by $\frac{2}{3}$, produceth $\frac{2}{3}$ of $\frac{3}{4}$, or $\frac{6}{12}=\frac{1}{2}$; which is fully explained in the Reaſon of the Rule to *Caſe* 5. *Sect.* 2.

Caſe 2.] When you multiply a whole Number by a Fraction.

Rule.] Multiply the Integer by the Numerator of the Fraction, and the Product placed over the Denominator, is the Anſwer; which differeth

differeth nothing from the laſt Caſe, if you put a Unit under the Integral part, making it like a Fraction.

Example.] Multiply 126 by $\frac{3}{7}$.

Anſwer $\frac{378}{7}$ or 54, by Caſe 2. of §. 2.

Caſe 3.] When you multiply a Simple by a Compound Fraction,

Rule.] Reduce the Compound Fraction into a Simple, and work as in *Caſe* 1. of this Section.

Example.] Multiply $\frac{18}{19}$ by $\frac{5}{9}$ of $\frac{3}{7}$.

Anſwer $\frac{270}{1198}$, or $\frac{20}{133}$.

§. 6. *Diviſion.*

Caſe 1.] When you would divide a Simple Fraction by a Simple.

Rule.] Having placed the Dividend and Diviſor, as in whole Numbers, multiply the Numerator of the Diviſor, in the Denominator of the Dividend, for the Denominator of the Quotient: And the Denominator of the Diviſor, in the Numerator of the Dividend, for the Numerator of the Quotient.

Example.] Divide $\frac{11}{12}$ by $\frac{1}{2}$.

$\frac{1}{2}$) $\frac{11}{12}$ ($\frac{22}{12}$ or $1\frac{5}{6}$.

The Reaſon of this Rule.

1. To make a Fraction greater in Value, is nothing but to multiply (or add to) its Numerator, or to divide or take from its Denominator.

2. To make a Fraction leſs, is to multiply (or add to) its Denominator, or to divide or take from its Numerator.

3. Upon theſe Two Axiums the Reaſon of the Rule given for Diviſion of Vulgar Fractions will appear. Suppoſe, for inſtance, $\frac{3}{14}$ is to be divided by $\frac{1}{4}$; if it were divided by 1, the Quotient would be $\frac{3}{14}$; and therefore, ſince it is but to be divided by a quarter of 1, the Quotient muſt be 4 times $\frac{3}{14}$.

4. For both in Fractions and whole Numbers, by how much leſs the Value of the Diviſor is, by ſo much more will that of the Quotient be; which is therefore, in this Example, according to the firſt Axium $\frac{12}{14}$; and ſhews plainly, why the Numerator of the Dividend

is

is multiplied by the Denominator of the Diviſor to produce the Numerator of the Quotient; whoſe Denominator is always the ſame with the Dividend, ſo often as 1 is the Numerator of the Diviſor.

5. But if the $\frac{3}{14}$ be divided by $\frac{3}{4}$, then the Quotient will (by the 4th Step) be but a 3d of the laſt Quote; *viz.* of $\frac{12}{14}$, becauſe $\frac{3}{4}$ (this Diviſor) is 3 times as much as the Diviſor $\frac{1}{4}$

6. The moſt Natural way therefore to divide by $\frac{3}{4}$, is to take a 3d of the Numerator of the Quotient ariſing from dividing the ſame Fraction by $\frac{1}{4}$, which is $\frac{4}{14}$, according to the 2d Axium.

7. But becauſe it would often happen that the Numerator of the Quotient cannot be divided by the Numerator of the Diviſor without a Remainer, which would be more troubleſome and leſs exact: It is therefore more practicable (ſince it produceth the ſame thing by the 2d Axium) to multiply the Denominator of the Dividend by the Number you ſhould have divided the Numerator of the Quotient, which in this Inſtance of $\frac{2}{14}$ by $\frac{3}{4}$, is 14 by 3, which produceth 42; ſo the Anſwer is $\frac{12}{42}$, or $\frac{4}{14}$, the ſame as by the 6th Step; and plainly ſhews the Reaſon why the Denominator of the Dividend is multiplied by the Numerator of the Diviſor, to produce the Denominator of the Quotient.

Caſe 2.] When you divide a whole Number by a Fraction.

Rule.] Place a Unit under the whole Number, and work as in the laſt.

Example.] Divide 54 by $\frac{3}{7}$. See the Operation.

$\frac{3}{7}$) $\frac{54}{1}$ ($\frac{378}{3}$, Anſwer, or 126; which proves the ſecond Caſe of the laſt Section.

Caſe 3.] When you divide a Simple Fraction by a Compound.

Rule.] Reduce the Compound to a Simple Fraction, and work as in Caſe the Firſt.

Example.] Divide $\frac{30}{133}$ by $\frac{5}{9}$ of $\frac{3}{7}$. The Compound Fraction is $\frac{15}{63}$.

$\frac{15}{63}$) $\frac{30}{133}$ ($\frac{1890}{1995}$ or $\frac{18}{19}$, which proves *Caſe* 3. of *Sect.* 5.

Having in the two laſt Sections ſhewed the way of multiplying and dividing Fractions, it would be needleſs to ſay any thing of the Golden-Rule, ſince there is nothing in it but what has been already done; obſerving onely to multiply and divide by the fractional Way, inſtead of whole Numbers.

§. 7. *Re-*

§. 7. *Reduction of Decimal Fractions.*

A Decimal Fraction is onely different from a Vulgar in this: That the Denominator of a Decimal Fraction is either 10, or ſome power of 10, *viz.* 100, 1000, 10000, *&c.* ſo that the Denominator is eaſily known without expreſſing it; for in a Decimal Fraction there is a Point or Prick toward the Left-hand of the Numerator, which Point always poſſeſſes the like place, as the firſt Figure toward the Left-hand would, if it were to be wrote down: Thus $\frac{1}{10}$ is .1, the Prick being in the Ten's place, and therefore denotes the Denominator to be 10; $\frac{12}{100}$ is .12, $\frac{125}{1000}$ is .125; $\frac{1964}{10000}$ is .1964; $\frac{17}{1000}$ is .017; $\frac{24}{10000}$ is .0024, *&c.*

The manner to Reduce a Vulgar Fraction to a Decimal, is by this Proportion.

Rule.] As the Denominator of the Vulgar Fraction given,
Is in proportion to its Numerator:
So is 1000,
To the Numerator of the Decimal, whoſe Denominator is 1000.
Or ſo is 10000 to the Decimal, whoſe Denominator is 10000, *&c.*

Example.] What is $\frac{1}{8}$ in a Decimal Fraction? See the Operation.

8: 1:: 1000
1

8) 1000 (.125 Anſwer.
...
20
40
0

But becauſe it ſometimes happens that a Cypher or more is to poſſeſs the 1, 2, *&c.* Places of the Decimal toward the Left-hand; therefore take this

Rule.] As many Cyphers as you have in the third Number of the 3 in proportion, as above, ſo many Places muſt you prick off in the Quotient toward the Right-hand.

Exam-

Example 2.] How is 9*d.* expreſſed in the Decimal of a Pound Sterling?

Rule.] Conſider that in a Pound are 240 Pence; therefore 9*d.* is $\frac{9}{240}$*l.* in a Vulgar Fraction by the ſeventh Caſe of Section the Second foregoing. for 9*d.* is $\frac{9}{12}$ of $\frac{1}{20}$ of a Pound.

Then ſay as in the laſt Example.

240: 9:: 10000

9

l.

240) 90000 (0375 Anſw.

.1800

1200

0 Remains.

In this Example, becauſe I had 4 Cyphers in the third Number, therefore I muſt prick 4 places off toward the Right-hand the Quotient for Decimals; but becauſe the ſaid Quotient did but conſiſt of 3 places, therefore I ſupply the fourth to the Left-hand with a Cypher.

Note, that the greater your third Number is, the nearer do you bring your Decimal to Truth, when any thing happens to remain, as in the Examples following; but in moſt Caſes where the Decimal is not to be multiplied by a great Number, it is ſufficient that the fourth Number be 1000.

But when you reduce $\frac{1}{4}$, or $\frac{1}{2}$, or $\frac{3}{4}$ to Decimals, or any Number of Shillings to the Decimal of a Pound, it is ſufficient in theſe Caſes if your third Number be 100.

Example 3.] How is 3 Farthings wrote in the Decimal Fraction of a Pound Sterling?

Work, as you ſee in the Margent, by the Rules given in the laſt Example, and you will find the Anſwer to be .00302, or 302 Hundred Thouſand Parts of a Pound.

Qrs in a lb. *Qrs*

960: 3:: 100000

3

l.

960) 30000 (.00302

2000

80 Remains.

Example 4.] How is 12 Pounds expreſſed in the Decimal of 112, or One Hundred?

The Vulgar Fraction by the laſt Examples is $\frac{12}{112}$ Hundred; therefore the Decimal is .1071, as followeth.

112 : 12 :: 10000

12

112) 120000 (.1071

800

160

48 Remains, which is inconſiderable, being leſs than $\frac{1}{10000}$ of a Unit.

Example 5.] How is 13 Shillings in the Decimal of a Pound?

In a Vulgar Fraction 13 Shillings is $\frac{13}{20}$ *l.* and in a Decimal .65 *l.*

20 : 13 :: 100

13

20) 1300 (.65 Anſwer.

100

0 Rem.

Exam-

Example 6.] How is 14*s.* 6*d.* in the Decimal of a Pound?

In 14*s.* 6*d.* are 174*d.* and the Decimal (by the ſecond Example) is .725 *l.*

240: 174:: 1000
174

240) 174000 (.725 *l.* Anſwer.
...

600

1200

0 Remains.

Note, that you may by the Rule following, write down any Number of Shillings in the Decimal of a Pound, without any Proportion.

Rule.] If your Shillings are an even Number, half of them is the Decimal of a Pound; but if they are odd, put a Cypher to the Right-hand, and then the half is the Decimal of a Pound.

Thus 14*s.* is .7 *l.* 16*s.* is .8 *l.* &c. Likewiſe 13*s.* or 130 is .65 *l.* 15*s* or 150 is .75 *l.* &c.

You may likewiſe write down any Number of Pence or Farthings in the Decimal of a Pound, without working by the foregoing Rules: For if you reduce the given Pence into Farthings, and place a Cypher to the Left-hand, you have the Decimal of a Pound required: but if the ſaid Farthings exceed 14, you may add one (for reaſon given in the next Caſe) and another for each 39 Farthings.

Thus 3 *d.* is .012 *l.* 9*d.* is .037 *l.* 11 *d.* is .046 *l.*

Caſe 2.] When it is required to find the Value of any Decimal.

Rule.] Multiply the Decimal given, by ſuch a Number of Units of the next inferiour Denomination, as make a Unit of that your Decimal is of, and prick from the Right-hand of the Product ſo many places as your Decimal conſiſteth of: So thoſe towards the Left-hand the ſaid Point or Prick are Integers; and thoſe to the Right-hand it, are parts of a Unit of thoſe Integers.

Example 1.] What is the Value of .1071 of a Hundred? See the Operation.

.1071 Hundred
4 Quarters in a Hundred } Multiply

.4284 Quarters of a Hundred
28 Pound } Multiply

34272
8568

l. 11 .9952 Parts of a Pound.

Note, that if you ſuppoſe the Denominator of your Decimal to be 10000, you will find this way of finding the Value of a Decimal Fraction to differ nothing from that of Vulgar: *Caſe* 6. *Sect.* 2. of this Chapter.

In the laſt Example you ſee that the Value of .1071 Hundred is 11 Pound; and the Parts being another Pound, wanting leſs than a Hundred part of a Unit, you may call the Value 12 Pound: which proves the Work in the fourth Caſe of the laſt Section. And,

Note, that as often as the Decimal (as in the Example laſt preceding) is above .75, in the loweſt Denomination, you may call it a Unit.

Example 2.] What is the Value of .747 of a Pound *Troy*? See the Work.

.747 Parts of a Pound
12 Ounces in a Pound } Multiply

1494
747

Ounces 8.964 Parts of an Ounce
20 Penny-weight } Multiply

Penny-weight 19.280 Parts of a Penny-weight
24 Grains } Multiply

112
56

Grains 6.720 Parts of a Grain.

So

So that by the Operation you may perceive that the Value of .747 *l.* is 8 *s.* 19 *d-w.* 6 Grains, and about ¾ of a Grain.

Example 3.] What is the Value of .9184 of a Pound Sterling? Anſwer, 18 *s.* 4 *d.* 1 *q.*

.9184 Parts of a Pound
20 Shillings in a Pound } Multiply

Shillings 18.3680 Parts of a Shilling
12 Pence in a Shilling } Multiply

736
368

Pence 4.4160 Parts of a Penny
4 Farthings —— } Multiply.

Farthings 1.6640 Parts of a Farthing.

Note, that the Value of a Decimal of a Pound, as in the laſt Example, may be found by inſpection, by this

Rule.] Double the Figure ſtanding next the Point in the Decimal given; and if the next Figure toward the Right-hand the aforeſaid Figure is 5 or more, add 1 to the Product: Then what Figure ſtands in the ſecond place, above or under 5, reckon ſo many Tens of Farthings; and what ſtands in the third place from the Prick is ſo many Farthings; which, as often as they are above 12, make leſs by 1, or above 39 leſs by 2. So .347 *l.* is 6 *s.* 11¼, *&c.*

The Reaſon of this Rule.

That place in a Decimal Fraction next the Prick, is called *Primes*, being ſo many Tenth parts of a Pound: Now $\frac{1}{10}$ of a Pound being 2 Shillings; therefore whatever Figure poſſeſſeth that place, muſt be multiplied by 2.

The reaſon why you add 1 to the Product, as often as the ſecond Figure from the Prick is 5, or more, is becauſe .05 of a Pound is 1 Shilling; for if .1 *l.* be 2 Shillings, then half .1, which is .05, muſt be 1 Shilling.

Laſtly, Your reckoning the ſecond and third Places from the Prick ſo many Farthings, ſuppoſes 1000 Farthings in a Pound; and there being

being but 960, that Rule must be something erroneous, but 'tis near enough the Truth for ordinary practice; especially if for the 40 Farthings which the 1000 exceeds the 960, you make this allowance of deducting 1 at every 25; for if 1000 is 40 too much, 500 is 20 too much, 250 is 10 too much, 50 Farthings is 2 Farthings too much, and 25 is 1 Farthing too much; so that your Computation for 13 Farthings is $\frac{1}{2}$ a Farthing too much; and if you deduct a Farthing at all Decimals between 13, and 38 or 39, it may be near enough; for less than a Farthing is never receiv'd or paid in English Coin. Thus I hope the Rule is made plain, and by it you will find .750 is 7 Tenths of a Pound, or 14 *s.* and .050 *l.* or 50 Farthings made less by 2 for the Reason aforesaid, is 48 Farthings, or 1 Shilling more, which makes 15 *s.* also .194 *l.* is 1 Tenth of a Pound or 2 Shillings, .050 *l.* or 1 Shilling more, which makes 3 *s.* and 44 Farthings (the 9 being 4 above 5) made less by 2, for the Reason aforesaid, is 10$\frac{1}{2}$ *d.* So the Value is 3 *s.* 10$\frac{1}{2}$ *d.*

§. 8. *Addition.*

There is no difference between Addition of Decimals, and whole Numbers of one Denomination; observing onely to place the Decimals Point under Point, as in the Examples, and prick so many off the Summ as are in the greatest Number of places in the Decimal given.

Example 1.	*Example* 2.	*Example* 3.
46 .9765 *l.*	.39462	.987
360 .146	.0013	.3642
41 .007	.99	.853
72 .9	.176	.9761
521 .0295 Total.	1 .56192 Total.	3 .1803 Tot.

The Reason of this Rule.

The Reason of adding Decimals thus, will appear from that of Vulgar Fractions, after reduced to a Common Denominator, in which Decimals always are, that to the Decimal of the most places, being the Common Denominator, which is the Divisor for the Summ of the Numerators, as in the Rule to Case the 1st. of Sect. the 3d of this Chapter.

§. 9. *Sub-*

§. 9. *Subſtraction of Decimals.*

Place the Numbers as in the laſt, and proceed as in Subſtraction of one Denomination.

Example 1.	*Example* 2.	*Example* 3.
From 39 .0049	From 160 .99	From 389 .0
Take 7 .947	Take 94 .8462	Take 0 .346
Rem. 31 .0579	Rem. 66 .1438	Rem. 388 .654

This Rule is the very ſame with that in Vulgar Fractions, *Sect.* 4. of this Chapter; Decimals always having a Common Denominator, as is ſaid before; ſo that the difference between the Numerators or Numbers given, is the Numerator of the Anſwer, as in Vulgar Fractions.

§. 10. *Multiplication of Decimals.*

In this Rule you are to place the Factors, and work as in whole Numbers: But after you have found the Product, obſerve this General

Rule.] As many Decimal places as you have in both the Factors, ſo many places muſt you prick off toward the Right-hand of the Product. And if ſo many places happen not to be contained in the ſaid Product, (as it will happen when you multiply two Fractions together that are of little value) you are to make up the Number by Cyphers toward the Left-hand the ſaid Product.

The Reaſon of this Rule is plain, it differing nothing from that given for multiplying Vulgar Fractions, *Sect.* 5. of this Chapter; for by multiplying the Summs given together, you multiply the Numerators; and by cutting off as many as are in both Decimals given, you multiply the Denominators, and divide that of the Numerators by the Product of the Denominators. Thus to multiply $\frac{1}{2}$ by $\frac{3}{4}$, is the ſame as .75 by .5, and 100 by 10; *viz.* $\frac{75}{100}$ by $\frac{5}{10}$, for 5 times 75, is 375; and 10 times 100, is 1000: ſo the Product by the $\frac{375}{1000}$, or .375.

Exam-

Example 1.

Multiply 3 .467
By 19 .01

3467
31203
3467

Prod. 65 .90767

Example 2.

Multiply 36492
By .032

72984
109476

Product 1167 .744

Example 3.

Multiply .13461
By 42

26922
53844

Product 5 .65362

Example 4.

Multiply .1264
By .247

8848
5056
2528

Prod. .0312208

Example 5.

Multiply .01832
By .007

Prod. .00012824

Example 6.

Multiply .048
By .12

Product .00576

§. 11. *Diviſion.*

Diviſion is the ſame with that of whole Numbers; all the difficulty therefore is, to know how many Decimal places to prick off toward the Right-hand the Quotient: For which take this

Rule.] Take notice how many Decimal places you have in the Dividend, and how many in the Diviſor; and how many the Difference is; ſo many places muſt you prick off to the Right-hand of the Quotient: But if ſo many places are not in the Quotient, as the ſaid

ſaid Difference; make up the Number by prefixing Cyphers toward the Left-hand.

Decimal Fractions may alſo be divided as Vulgar, *Sect.* 6. of this Chapter; as $\frac{75}{100}$ by $\frac{125}{1000}$ quotes $\frac{75000}{125000}$ or 6.

Example 1.] Divide 12.43210 by 9.465. See the Operation.

```
9.465) 12.43210 (1.31
       ...
       -----
        29671
       -----
        12760
       -----
Remains 3295
```

Note, that in this and moſt other Examples in Diviſion of Decimals, it will be neceſſary to place Cyphers toward the Right-hand of the Dividend; and that you may know what Number of Cyphers to put to the Right-hand of any Dividend, obſerve this

Rule.] Conſider how many Decimal places you would have in the Quotient, (as 3 is ſufficient, if it is not afterward to be multiplied by any thing,) and alſo how many Decimal places you have in your Diviſor; and ſo many as you have in both, make ſo many Decimal places in the Dividend, by adding Cyphers, if need require; as in the Example in the Margent, where 3.46 is divided by 1.47; and becauſe I would have 3 Decimals in the Quotient, and there are 2 in the Diviſor, I muſt make 5 Decimal places in the Dividend:

```
1.47) 3.46000 (2.353
      ....
      -----
       520
      -----
       790
      -----
       550
      -----
       109 Remains;
```

Which being leſs than 1 Thouſandth part of a Unit, is not material. So much for Diviſion.

The Golden Rule is the ſame with that in whole Numbers, obſerving Multiplication and Diviſion of Decimals, as they are already taught.

Sect: j.

Practice

A short way of Casting up all Sorts of Merchandise.

The TABLE

The even p^ts of a l Sterl.g

ʊ	d	l
10	0	1/2
6	8	1/3
5	0	1/4
4	0	1/5
3	4	1/6
2	6	1/8
2	0	1/10
1	8	1/12

The even p^ts of a Shilling

d	ʊ
6	1/2
4	1/3
3	1/4
2	1/6
1 1/2	1/8
1	1/12

of a Tun

℔	q^s
10	0 1/2
5	0 1/4
4	0 1/5
2	2 1/8
2	0 1/10

of a ℔ w^t

l
14 1/8
16 1/7

of 1/2 a ℔ w^t

l
14 1/4
8 1/7
7 1/8

of 1/4 a ℔ w^t

l
14 1/2
7 1/4
4 1/7
3 1/2 1/8

§. 1. *Rules of Practice.*

BEfore you enter upon theſe Rules following, it is neceſſary you ſhould have the foregoing Tables of the *Aliquot* parts of Money and Weight well fixed in your mind, and likewiſe the Table following of the 9 Digits, multiplied by 12, which will enable you to multiply or divide any Number by 12, as though it were but a Digit.

12 Times	1 = 12	12 Times	4 = 48	12 Times	7 = 84
	2 = 24		5 = 60		8 = 96
	3 = 36		6 = 72		9 = 108

As a neceſſary Introduction to Practice, you are alſo to learn to divide a Number by any of the 9 Digits or 12, without putting down more Figures than the Number to be divided and the Quotient: For the Rules of Practice being of daily uſe with the Merchants, ought to be performed with all imaginable Brevity, I ſhall therefore give the following Examples, to inform the Learner how to take $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$, *&c.* of any Number, and then proceed to what I chiefly deſign in this Section; namely to ſhew how the Value of any Quantity of Merchandize may be found with moſt Diſpatch.

Admit then you would take half 3164: Say the Two's in 3 is 1 (and the 1 over makes the next 1 Eleven) Two's in 11 is 5, and the 1 over makes the Six 16) Two's in 16 is 8, Two's in 4 is 2; ſo that the half of 3164 is 1582. Alſo by the ſame Rule $\frac{1}{3}$ of 18765 is 6255; $\frac{1}{12}$ of 46723 is 3893, and 7 remains; and $\frac{1}{20}$ of 47632 is 2381, if according to the third Caſe of the 5th Chapter, you cut off the Figure in Unit's place of the Dividend, and take $\frac{1}{2}$ the reſt: And in theſe Caſes, what remains, is always of the ſame Name with the Dividend.

$\frac{1}{2}$ of 3164
is = 1582

$\frac{1}{3}$ of 18765
is = 6255

$\frac{1}{12}$ of 46723
is = 3893 7 Rem.

$\frac{1}{20}$ of 47632
is = 2381 12 Rem.

Case 1. When the Price of a Unit or Integer of a Commodity is 1 Shilling.

Rule.] Take $\frac{1}{20}$ of the given Number for the Answer, because 20 *s.* is 1 Pound.

Example.] What is 46743 Pound of Cotton-wool worth at 12 *d. per* Pound? See the Operation.

$\frac{1}{20}$ of 46743

is 2337 *l.* 3 *s.* Answ.

Case 2.] When the Price of any Commodity is 2 Shillings.

Rule.] Take $\frac{1}{10}$ of the given Number, as in the third Example of the third Case of Chapter the Fifth. Or cut off Units place, so those Figures to the Left-hand are Pounds, and those to the Right, so many 2 Shillings.

19764 at 2 *s.*

1976 *l.* 8 *s. Facit.*

The Reason of this Rule.

Two Shillings is $\frac{1}{10}$ of a Pound; and to divide a Number by 10, is only to cut off Units place of the Dividend and Divisor, by which the Divisor will but be 1, and the Dividend less by the Units place cut off, as $\frac{100}{10}$ is equal to $\frac{10}{1}$, thus $\frac{100}{10}$: Now 1 being a Number which does not divide any other, therefore the Figures remaining of the Dividend to the Left-hand must be the Answer in Pounds; and the Figure cut off in Units place being so many Two Shillings as the Digit denoteth, must therefore be multiplied by 2, to produce Shillings.

☞ By this Rule you have also the Reason of Reducing Shillings into Pounds, by cutting off Units place of the Dividend, and taking $\frac{1}{2}$ the rest for Answer; because 1 *s.* is $\frac{1}{2}$ of 2 *s.* or it is $\frac{1}{2}$ of $\frac{1}{10}$ of a Pound.

Example.] What the price of 19764 Yards at 2 *s*? See the Operation above.

Note, that what remains is always (as was said before) of the same Denomination with the Dividend; so that in the last Example, 4 remaining is 4 two Shillings, or 8 *s.*

Case 3.] When the price of the Unit is any other even Number of Shillings under 20 *s.* take this

Rule.] Take $\frac{1}{2}$ the price of the Integer, and by that multiply the Summ given, and the Product is Pounds; only when you multiply the

the firſt Figure toward the Right-hand, double the Exceſs of the Product above Ten or Tens for Shillings, and carry the ſaid Tens to the Pounds, as in the Examples following.

The Reaſon of this Rule,

Is plainly deduced from the Common Rule of Multiplying any Number of Integers by the Value of 1 Integer, to give the price of all the Integers; and from the Rule for taking ½ a Number of Shillings (except Units place) for Pounds; for it produceth the ſame thing, if I take ½ the Product of 2 Numbers multiplied together, as if I multiply one of the Numbers by ½ the other thus: If I multiply 640 by 6, ½ the Product is 1920, equal to the Product of 640 by 3, which ſhews the Reaſon of Multiplying the Number given by ½ the price of the Integer for the Anſwer in Pounds. And as for the Figure in Units place, which is, in this Caſe, always Shillings; the multiplying it by ½ the price of the Integer, the doubling the Number above 10 or Tens in the Product for Shillings of the Anſwer, *&c.* is the ſame as if you multiply the ſaid Figure in Units place by the whole price of the Integer, and put the Shillings above or under a Pound in the Shillings place, and carry 1 *l.* for every 20 *s.* to the Pounds place, as in the following Example, if you multiply the 3 by 6 *s.* it produceth 18; and the other 3 Figures, multiplied by ½ the price of the Integer, for the Reaſon aforeſaid, produceth the Pounds, *viz.* 1296 *l.* 18 *s.*

Example 1] What the price of 4323 Yards at 6 *s. per* Yard?
Work as in the Margent.

4323 Yards at 6 *s.*
l. 1296 : 18 *s.* Anſwer.

Example 2.] What the price of 16947 Yards at 8 *s. per* Yard?
In this Example, ſay, 4 times 7 is 28, twice 8 is 16 *s.* and carry 2 Pound; 4 times 4 is 16, and 2 is 18; 8, and carry 1, *&c.*

16947 Yards at 8 *s.*
6778 *l.* 16 *s.* *Facit.*

Example 3.] What the price of 7943 Yards of broad Cloth at 18 *s. per* Yard?

7943 Yards at 18 *s.*
7148 *l.* 14 *s.* *Facit.*

Note, that from the Rule in this Caſe of an even Number of Shillings, are excepted 10 *s.* and 2 *s.* For when the price of the Unit

Unit is 2 *s.* work as in the ſecond Caſe; and if the price of it is 10 *s.* take half the Integers given, becauſe there are twice 10 *s.* in a pound.

Example 4.] What the price of 369 Ells of Holland at 10 *s. per* Ell?

369 Ells at 10 *s.*

184 *l.* 10 *s. Facit.*

Caſe 4.] When the given price of a Unit of any Wares or Commodity, is any odd Number of Shillings under 20.

Rule.] Work for the next even Number of Shillings, that are leſs than the ſaid odd Number, by the Rules in the laſt Caſe; and for the odd Shilling, work as in the firſt Caſe, and the Summ is the Anſwer in Pounds.

Example 1.] What is the price of 859 Yards of Muſlin at 17 *s. per* Yard? See the Margent.

From this laſt Rule is excepted 5 *s.* For if the price of the Integer is 5 *s.* take $\frac{1}{4}$ of the given Number, becauſe 5 *s.* is $\frac{1}{4}$ of a Pound.

859 Yards at 17 *s.*

	l.	*s.*	*s.*
Add	687	4	at 16
	42	19	at 1
	730	3	*Facit.*

Example 2.] What is the price of 3743 *l.* of Coffee at 5 *s. per* Pound?

See the Work in the Margent; where obſerve, that the 3 remaining is 3 five Shillings, or 15 *s.*

3743 *l.* at 5 *s.*

935 *l.* 15 *s. Facit.*

Caſe 5.] When the price of the Integer is 1 *d.* or any other Number of pence, which are the *Aliquot*, or even part of a Shilling.

Rule.] Divide the Number given by the ſaid part, and thoſe Shillings into Pounds by the firſt Caſe.

Example 1.] At 1 *d. per* Pound, what coſt 9764 ℔?

$\frac{1}{12}$ of 9764 ℔ at 1 *d.*

is 813 *s.* 8 *d.* Rem.

Facit 40 *l.* 13 *s.* 8 *d.*

Exam-

Example 2.] What coſt 13147 ℔ of damaged Raiſons, at 2 *d. per* Pound? Anſw. 109 *l.* 11 *s.* 2 *d.*

Or, take $\frac{1}{120}$ of the given Number, by cutting off the Cypher, and you perform it at once.

$\frac{1}{6}$ of 13147 ℔ at 2 *d.*

is 2191 *s.* 2 *d.*

Facit 109 *l.* 11 *s.* 2 *d.*

Example 3.] What coſt 87341 Pound of Sugar at 3 *d. per* Pound?

Anſw. 1091 *l.* 15 *s.* 3 *d.*

Or, take $\frac{1}{80}$ of the given Number, *viz.* $\frac{1}{8}$ of 2183.

$\frac{1}{4}$ of 87341 *l.* at 3 *d.*

is 21835 *s.* 3 *d.* Rem.

Facit 1091 *l.* 15 *s.* 3 *d.*

Example 4.] What coſt 3097 Pound of Raiſons at 4 *d. per* Pound?

Anſw. 51 *l.* 12 *l.* 4 *d.*

Or, take $\frac{1}{60}$ of the given Number.

See the Operation of each in the Margent.

$\frac{1}{3}$ of 3097 *l.* at 4 *d.*

is 1032 *s.* 4 *d.* Rem.

Facit 51 *l.* 12 *s.* 4 *d.*

Example 5.] What coſt 14032 Pound of Sugar at 6 *d. per* Pound?

In this laſt Example of 6 *d.* you need onely to take a fourth part of the given Number, except the Units place which you cut off, and you have the Anſwer 350 *l.* and the 32 Six-pences that remains are 16 *s.*

$\frac{1}{40}$ of 14032 *l.* at 6 *d.*

Maketh 350 *l.* 16 *s.*

Caſe 6.] When the price of a Unit or Integer of any Commodity is any Number of pence under 12, that are not an even part of a Shilling; as 5 *d.* 7 *d.* 8 *d.* 9 *d.* 10 *d.* or 11 *d.* you are to work as in this and the following Caſes.

Example.] What coſt 34071 Pound of Figgs at 5 *d?*

Rule.] Becauſe 5 *d.* is a ſixth part of half a Crown, take $\frac{1}{6}$, and then $\frac{1}{8}$ of the Quotient for Pounds, as followeth:

$\frac{1}{6}$ 34071 *l.* at 5 *d.*

$\frac{1}{8}$ 5678: 15 *d.* Remains.

Facit 709 *l.* 16 *s.* 3 *d.*

Caſe.]

Caſe 7.] When the price of the Unit of any thing is 7 *d.*

Rule.] Take firſt $\frac{1}{80}$ of the given Number, becauſe 80 Threepences make 1 *l.* then take $\frac{1}{60}$ of the given Number, (becauſe 60 Groats make a pound Sterling,) and add to the $\frac{1}{80}$, and the Summ is the Anſwer in pounds. See the Work following.

Example.] What coſt 321 Pound of damaged Cotton at 7 *d. per* Pound?

$\frac{1}{80}$ of 321 *l.* at 7 *d.*

Add { is 4 *l.* 3 *d.* Remains.
and $\frac{1}{60}$ is 5 *l.* 7 *s.* Remains.

Facit 9 *l.* 7 *s.* 3 *d.*

Note, that the 1 remaining above the firſt Quotient, is 1 Threepence; and the 21 remaining above the ſecond Quotient, is 21 Fourpences (by the Rules foregoing) or 7 *s.* ſo the Anſwer is 9 *l.* 7 *s.* 3 *d.*

Caſe 8.] When the given price of a Unit or Integer is 8 *d.*

Rule.] Take $\frac{1}{60}$ of the given Number, and put it down twice, and the Summ is the Anſwer in pounds.

Example.] What coſt 3746 Yards of Ribbon at 8 *d. per* Yard?

$\frac{1}{60}$ of 3746 Yards at 8 *d.*

Add { is 62 *l.* 8 *s.* 8 *d.*
62 *l.* 8 : 8

Facit 124 *l.* 17 : 4

Caſe 9.] When the given price of the Integer is 9 *d.*

Rule.] Take $\frac{1}{40}$ of the given Number, for 6 *d.* and $\frac{1}{80}$ of it for 3 *d.* and the Summ is the Anſwer in pounds.

Exam-

Example.] What coſt 4052 Buſhels of Coals at 9*d. per* Buſhel? The Operation followeth.

$\frac{1}{40}$ of 4052 at 9*d.*

is 101 : 6*s.* } Add
$\frac{1}{80}$ is 50 : 13 }

Facit 151*l.* 19

Caſe 10.] When the given price of the Unit or Integer is 10*d.*

Rule.] Take $\frac{1}{40}$ for 6*d.* and $\frac{1}{60}$ for 4*d.* of the Number given, and the Summ is the Anſwer in pounds.

Example.] What coſt 3179 Pound of Hopps, at 10*d. per* Pound?

$\frac{1}{40}$ of 3179 at 10*d.*

is 79*l.* 9*s.* 6*d.* } Add
$\frac{1}{60}$ is 52*l.* 19 : 8 }

Facit 132*l.* 9 : 2

Caſe 11.] When the given price of the Integer is 11*d.*

Rule.] From the given Number (ſuppoſing it Shillings) take $\frac{1}{12}$ thereof, and the Remainer is the Anſwer in Shillings; which bring into Pounds by Caſe the firſt.

Example.] What coſt 3470 Pound of Copper at 11*d. per* Pound?

$\frac{1}{12}$ of 3470*l.* at 11*d.*
is 289*s.* 2d Deduct.

Rem. 3180*s.* 10

Facit 159*l.* 00 : 10*d.*

Caſe 12.] When the given price of a Unit or Integer is Farthings under 4.

Rule.] Take the *Aliquot* parts of 1 *d.* or 1 *s.* and work for the ſhillings as before.

Example 1.] What coſt 19746 Yards of Tape, at 1 Farthing *per* Yard?

In this Example take $\frac{1}{4}$ for pence, $\frac{1}{12}$ for ſhillings, and $\frac{1}{20}$ for pounds.

$\frac{1}{4}$ of 19746 Yards at 1 Farthing.

$\frac{1}{12}$ 4936 *d.* 2 *q.*

$\frac{1}{20}$ 411 *s.* 4 *d.*

Facit 20 *l.* 11 : $4\frac{1}{2}$.

Example 2.] What coſt 47390 Yards of Tape, at 2 Farthings *per* Yard?

In this Example take $\frac{1}{2}$ for pence, and proceed as in the laſt.

$\frac{1}{2}$ 47390 Yards at 2 Farthings.

$\frac{1}{12}$ 23695 *d.*

1974 *s.* 7 *d.*

Facit 98 *l.* 14 *s.* 7.

Example 3.] What coſt 41038 Yards of Ditto, at 3 Farthings *per* Yard?

In this Example, take $\frac{1}{2}$ for 3 Half-pence, $\frac{1}{8}$ of the 3 Half-pences for Shillings, *&c.*

$\frac{1}{2}$ 41038 Yards at 3 Farthings.

$\frac{1}{8}$ 20519 Three Half-pences.

2564 *s.* $10\frac{1}{2}$ *d.*

Facit 128 *l.* 4: $10\frac{1}{2}$.

Caſe 13.]

Caſe 13.] When the price of the Integer is ſhillings and pence.

Rule.] Work for the ſhillings as is before directed, and alſo for the pence as before taught, and the Summ is the Anſwer in pounds.

But if the pence given be an *Aliquot* part of the ſhillings given, you may take ſuch part of the Quotient for ſhillings, and the Summ of the Quotients is the Anſwer. Or if the ſhillings and pence together be an *Aliquot* part of a pound; take ſuch part, and you have the Anſwer at the firſt Operation in pounds.

Example 1.] What coſt 1914 Ells of Lockram, at 1 *s.* 8 *d. per* Ell?

Rule.] Take $\frac{1}{12}$, becauſe 1 *s.* 8 *d.* is $\frac{1}{12}$ of a pound.

$\frac{1}{12}$ of 1914 Ells at 1 *s.* 8 *d.*

Facit 159 *l.* 10 *s.*

Example 2.] What coſt 2789 Ells of Bagg-holland at 3 *s.* 4 *d. per* Ell?

Rule.] Take $\frac{1}{6}$, becauſe 6 Three ſhillings Four-pences make a pound.

$\frac{1}{6}$ 2789 Ells at 3 *s.* 4 *d.*

Facit 464 *l.* 16 *s.* 8 *d.*

Note, that the 5 remaining is 5 Three ſhillings 4 pences.

Example 3.] What coſt 978 Groſs of Buttons at 6 *s.* 8 *d. per* Groſs?

Rule.] Take $\frac{1}{3}$, becauſe 6 *s.* 8 *d.* is $\frac{1}{3}$ of a pound.

$\frac{1}{3}$ of 978 at 6 *s.* 8 *s.*

Facit 326 *l.*

Example 4.] What coſt 796 Ells of Dowlaſs, at 3 *s.* 10 *d. per* Ell?

Rule.] Take $\frac{1}{8}$, as in the ſecond Example, for 3 *s.* 4 *d.* and $\frac{1}{40}$ for the 6 *d.* and the Summ of the Quotients is the Anſwer, as followeth.

$\frac{1}{8}$ of 796 Ells at 3 *s.* 10 *d.*

is 132 *l.* 13 *s.* 4 *d.* at 3 *s.* 4 *d.*
$\frac{1}{40}$ is 19 *l.* 18 : 0 at 6 *d.*

Facit 152 *l.* 11 : 4 *d.* for Anſwer.

Example 5.] At 17 *s.* 4 *d. per* Yard, what coſt 394 Yards of broad Cloth?

Rule.] Take for 17 *s.* as is before taught, and $\frac{1}{20}$ of the given Number for the 4 *d.*

394 at 17 *s.* 4 *d.*

315 *l.* 4 *s.* for 16 *s.*
19 *l.* 14 for 1 *s.*
$\frac{1}{20}$ is 6 *l.* 11 : 4 *d.* for 4 *d.*
} Add

Facit 341 *l.* 9 : 4

Example 6.] What coſt 1504 Ells of Cambrick at 19 *s.* 9 *d. per* Ell?

Rule.] Take for the 19 *s.* as is taught in ſhillings *per* Unit, and for the 9 *d.* as is directed in pence *per* Unit.

1504 Ells at 19 *s.* 9 *d.*

1353 *l.* 12 *s.* at 18 *s.*
75 *l.* 4 at 1 *s.*
37 *l.* 12 at 6 *d.*
18 *l.* 16 at 3 *d.*
} Add

Facit 1485 *l.* 4 *s.*

Note,

Note, that in this laſt Example, after you have done with the ſhillings, you may take $\frac{1}{2}$ of 75 *l.* 4 *s.* for the 6 *d.* becauſe 6 *d.* is $\frac{1}{2}$ a ſhilling; and $\frac{1}{2}$ of 37 *l.* 12 *s.* for the 3 *d.* becauſe 3 *d.* is $\frac{1}{2}$ of 6 *d.* which is ſomewhat more brief.

Example 7.] What coſt 1904 Ends of Dimity at 14 *s.* 10 *d.* *per* End?

1904 at 14 *s.* 10 *d.*

1332 *l.* 16 *s.* at 14 *s.*
$\frac{1}{3}$ = 47 *l.* 12 at 6 *d.*
$\frac{1}{10}$ = 31 *l.* 14 : 8 at 4 *d.*
} Add

Facit 1412 *l.* 2 *s.* 8 *d.*

Example 8.] What coſt 1865 Yards of Fuſtian at 2 *s.* 4 *d.* *per* Yard?

1865 at 2 *s.* 4 *d.*

186 *l.* 10 *s.* at 2 *s.*
31 *l.* 1 : 8 *d.* at 4 *d.*
} Add

Facit 217 *l.* 11 : 8

Caſe 14.] When the given price of the Integer is Pence under 12, and Farthings under 4.

Rule.] Work for the Pence as is before taught; and if the Farthings are an even part of the Pence that you work'd for next before the Farthings, take ſuch part; otherwiſe work for the Farthings, as is taught before at Farthings *per* Unit.

Example 1.] What coſt 3471 Dozen of Buttons, at $3\frac{1}{2}$ *d*?

$\frac{1}{80}$ of 3471 at $3\frac{1}{2}$ *d.*

$\frac{1}{8}$ of 43 *l.* 7 *s.* 9 *d.*
is 7 *l.* 4 : $7\frac{1}{2}$
} Add

Facit 50 *l.* 12 : $4\frac{1}{2}$.

Exam-

Example 2.] What coſt 9761 Pounds of Sugar, at $5\frac{1}{4}$ *d. per* Pound?

$\frac{1}{80}$ of 9761 *l.* at $5\frac{1}{4}$ *d.*

is 122 *l.* 00 *s.* 3 *d.* at 3 *d.*
$\frac{1}{12}$ is 8 1 *l.* 6 *s.* 10 *d.* at 2 *d.* } Add
of which $\frac{1}{8}$ is 10 *l.* 3 *s.* $4\frac{1}{4}$ at 1 *q.*

Facit 213 *l.* 10 *s.* $5\frac{1}{4}$ *d.*

Example 3.] What coſt 1794 Pounds of Pepper, at $3\frac{3}{4}$ *d. per* Pound?

$\frac{1}{80}$ of 1794 at $3\frac{3}{4}$ *d.*

is 22 *l.* 8 *s.* 6 *d.*
$\frac{1}{4}$ of the laſt Quote is 5 *l.* 12: $1\frac{1}{2}$ at 3 *q.* } Add

Facit 28 *l.* 00: $7\frac{1}{2}$.

Caſe 15.] When the price of the Integer or Unit is Pounds, Shillings, Pence and Farthings.

Rule.] Multiply the given Number by the Pounds, and to the Product add what the ſame comes to at Shillings, Pence, and Farthings, as is taught before.

Example.] What coſt 276 Hundred, 2 Quarters of Steel at 2 *l.* 3 *s.* $8\frac{1}{2}$ *d. per* Hundred?

For Anſwer: Firſt multiply the 276 by 2 *l.* then for 3 *s.* 4 *d.* take $\frac{1}{6}$ of 276; for the 4 *d.* take $\frac{1}{60}$ of it; and for the $\frac{1}{2}$ Penny, take $\frac{1}{8}$ of the laſt Quotient; and for the half Hundred, take $\frac{1}{2}$ 2 *l.* 3 *s.* $8\frac{1}{2}$ *d.* which is 1 *l.* 1 *s.* $10\frac{1}{4}$ *d.* and the ſumm of theſe is the Anſwer. See the Operation.

C.	*Q.*	
276:	2:	At 2 *l.* 3 *s.* $8\frac{1}{2}$ *d.*

Add
552 *l.* at 2 *l.*
46 *l.* at 3 *s.* 4 *d.*
4 *l.* 12: at 4 *d.*
0 *l.* 11: 6 *d.* at 2 *qrs.* which $\frac{1}{8}$ is of 4 *l.* 12 *s.*
1 *l.* 1: $10\frac{1}{4}$ for the half Hundred.

Facit 604 *l.* 5: $4\frac{1}{4}$.

§. 2. *Con-*

§. 2. *Concerning* Tare *and* Trett.

Tare is an Allowance in Merchandize made to the Buyer by the Merchant for the Weight of the Bagg, Cask, Cheſt, Freal, Hogshead, *&c.* in which any Merchants Goods are put. After this Allowance is deducted from the Groſs-weight, (which is the Weight of the Commodity and Cask, Hogshead, *&c.* together) the Remainer is the Weight of the Commodity only, and is called Nett-weight: The Allowance for *Tare* is various, as you ſhall ſee by and by.

Trett is an Allowance made for the Waſte, that may be mixt with the Commodity, as Duſt, Moats, *&c.* which is always 4 *l.* at 104; but though the Merchant alloweth this to the Retailer, yet himſelf is only allowed *Tare* in paying Cuſtom; ſo that he payeth as well for the Duſt as the beſt of the Commodity.

Note, that in ſuch Commodities wherein *Trett* is allowed, the Remainer, after the *Tare* is deducted, is called *Suttle*; out of which *Suttle* the Allowance for *Trett* is made; and, when it is deducted, the Remainer is called *Nett*: but if no Allowance is made for *Trett*, that Weight is called *Nett*, that remaineth after the *Tare* is deducted, as was ſaid before; ſo that the *Tare* is always deducted from the Groſs-weight, and the *Trett* from the *Suttle*: And to ſhew the beſt Method for diſcovering and deducting theſe Allowances, is the Work of this Section, and ſhall be explained in the Caſes following; wherein I ſhall be as plain as I can, becauſe I do not know anywhere the ſame is done already, with that brevity and perſpicuity which is neceſſary.

Caſe 1.] When the Allowance is 14 *l. per Cent.* (as of Almonds, Steel-Hemp) how to compute the Nett-weight.

This Caſe, as alſo the reſt, may be reſolved ſeveral ways; which after I have given you an Example of, I ſhall pitch upon that which, in my Opinion, is the briefeſt.

Example 1.] What is the Nett-weight of 9 C. 2 *Qrs.* 7 *l.* Groſs, *Tare* at 14 *l. per Cent.* to be deducted?

The Firſt Way.

Rule.] Reduce the given Weight into Pounds, as in the third Example of *Caſe* 2. §. 2. *Chap.* 6. as followeth: Then ſay, as 112 lb to

to 14 its *Tare*, ſo is the Pounds given to the Anſwer in *Tare*; which deduct from the Pounds Groſs, and the Remainer is Pounds Nett.

C.	*Qrs.*	lb
9 :	2 :	7

9
93
96

1071 *l.* Groſs.

1071 *l.* Groſs.
Deduct $133\frac{3}{4}$ *l.* Tare.

Anſwer $937\frac{1}{4}$ *l.* Nett.

Groſs	Tare	Groſs
112 :	14 :	1071

14

4284
1071

112) 14994 (133 *l.* Tare.
...

379

434

98 Remains, or $\frac{98}{112}$ *l.* or $\frac{3}{4}$ of *l.* and better.

A Second Way of Working the laſt Queſtion.

Reduce the 2 Quarters 7 Pound into the Decimal of a Hundred, as is taught in Reduction of Decimals; then deduct 14 the *Tare* from 112, and the Remainer is 98: So muſt you multiply 9.563 *C.* by 98, and the Product is Nett-pounds required.

9.563 *C.* Groſs
98 Nett-pounds in 1 *C.* } Mult.

76504
86067

93.7174

A Third

A Third Way of finding the Tare *and* Nett-weight *by Practice.*

Becauſe 14 *l.* is $\frac{1}{8}$ part of 112: take $\frac{1}{8}$ of the given Number, and you have the *Tare* ſought.

$\frac{1}{8}$ of 9 *C.*	2 *Qrs.*	7 lb Groſs.
is 1:	0:	$21\frac{3}{4}$ lb Tare, deduct.
Remains 8:	1:	$13\frac{1}{4}$ Nett.

A Fourth Way of finding the Tare.

Multiply the Hundreds by the *Tare* to be allowed for 1 Hundred; and for the Quarters and Pounds in the Groſs-weight, take a proportionable part of the ſaid Allowance for 1 Hundred, and the Summ is the *Tare* in Pounds; which you may either Reduce into Hundreds, and deduct it from the Groſs-weight, the Groſs-weight into Pounds, and then deduct the *Tare* in Pounds.

So that to find what *Tare* is to be allowed for 9: 2: 7 Groſs.

Tare at 14 Pound, *per* 112:

	C.	*Q.*	*l.*
Multiply	9:	2:	7 Groſs.
	14		

For 9 *C.* you have	126 *l.*
For 2 Quarters =	7 *l.*
For 7 Pound =	$0\frac{3}{4}$ *l.*

Tare.

C. Q. l.

Tot. *Tare* = $133\frac{3}{4}$ *l.* or 1: 00: $21\frac{3}{4}$ *l.* The Anſw. as before.

This method (eſpecially where the *Tare* to be allowed *per Cent.* is not a part) of 112 *l.* is the moſt eaſie and expeditious; but the Learner may make uſe either of the 3d or 4th Way, as he beſt liketh: by both which Methods, the following Caſes are wrought.

Caſe 2.] When the Allowance for Tare is 4 *l.* *per* Hundred Weight, as for Cotton-Wool, Hopps, Feathers, Lambs-Wool, or Poliſh.

Rule.] Take $\frac{1}{7}$ of $\frac{1}{4}$ of the Groſs-weight, and you have the Tare: which deduct from the Groſs, and the Remainer is the Nett required.

Example.] What is the Nett-weight of four Sacks of Cotton, Wool; whoſe Number and Weight is as followeth.

N°	C.	Q.	l.
31	1:	3:	19
35	2:	2:	07
36	3:	0:	14
40	2:	1:	12

By the 4th Way { Multiply C. 9, Q. 3, l. 24 by 4

Tare { l. 36, for 9 C. / l. 3, for 3 qrs. / l. 0¾, for 24 l. } Groſs.

Total Groſs 9: 3: 24 at 4 *l. per Cent.*

l. 39 ¾ Total Tare.

2: 1: 27 is ¼; of which take ⅓.

⅓ is 0: 1: 11¾ The Tare, deduct.

Remains 9; 2; 13 Nett.

Note, that what Hundreds remains in dividing, muſt be reduced into Quarters of Hundreds; and what Quarters remains, muſt be reduced into Pounds, and then divided: ſo in taking ¼ of 9 Hundred (in the Example toward the Left-hand) 1 Hundred remains, or 4 Quarters; which, added to the 3, is 7 Quarters; ¼ of which is 1 Quarter, and 3 remains; or 84 Pound, and the 24 is 108 Pound; ¼ of which is 27.

Caſe 3.] When the Tare to be allowed is 6 *l. per* Hundred Weight.

Ruſe.] Take ¼ of the given Number, and ⅐ of that fourth for 4 Pound Tare: then to the laſt Quotient add half it ſelf, and the Summ is the Tare required.

Or, as in the 4th Method: Multiply the Hundreds by 6; and ſo proceed as in the 4th Way of finding the Tare is directed, and in the Example.

Example.] What is the Tare of 6 Casks of Lattin or Iron-Wyre, at 6 *l. per* Hundred Tare?

By

By the 4th Way (by which this is best performed.)

C. Qrs. l.

The Gross-weight being 16 : 00 : 14

6

l. 96 is the Tare of 16 C.
0¾, of 14 l. (¾ l. being ⅛ of 6 l.
as 14 l. is ⅛ of 112 l.)

Total Tare = 96¾ l.

Case 4.] When the Allowance for Tare is 7 l. *per Cent.*

Rule.] Take ⅛ of 1 Eighth of the given Number for Tare.

Example.] What is the Tare of 9 C. 3 Qrs. 16 l. at 7 l. *per* Hundred Weight. See the Work following.

C. Qrs l.
9 : 3 : 16 at 7 l. Tare.

1 : 0 : 26 is ⅛

Deduct 0 : 2 : 13 is ⅛ of ⅛ being the Tare.

Remainer 9 : 1 : 03 Nett.

Or by the 4th Method

Mult. C. Q. l.
9 : 3 : 16 at 7 l.

7

For 9 C. = 63 l.
For 3 qrs = 5¼ l.
For 16 l. = 0¾ l.
} Tare.

69 l. Total Tare.

Case 5.] When the Allowance for Tare is 8 l. *per* Hundred Weight, as for Copper and Brimstone,

Rule.] Take ⅛ of a fourth of the given Number, and put it down twice, and the Summ is Tare.

Example.] What is the Tare of 3 Fatts of Copper? *Viz.*

N°	C.	Qr.	l.
7,	19 :	1 :	06
9,	21 :	3 :	04
13,	23 :	2 :	14

C. 64 : 2 : 24 = Total Gross.

C. 16 : 0 : 20 = ¼ of the Grs.

2 : 1 : 06¾ = ⅓ of the 4th.
2 : 1 : 06¾ = ⅓ of the 4th.
} Add.

4 : 2 : 13½ Tot. Tare.

Or by the 4th Way.

C. 64 : 2 : 24 Gross.

8

512 l. Tare of 64 C.
4 l. Tare of the 2 qrs.
1½ l. Tare of the 24 l.

517½ Tare of the Tot. Gross, or C. 4 : 2 : 13½, as before.

Case 6.] When the Allowance for Tare is 10 Pound *per Cent.*

Rule.] From $\frac{1}{8}$ of the Gross-weight, take $\frac{1}{7}$ of $\frac{1}{4}$ of the said Weight, and the Remainer is Tare.

But this Question is best performed by the 4th Way.

Example.] What is the Allowance for 14 *C.* 1 *qr.* 10 *l.* of Copperas, at 10 Pound *per* Hundred Tare?

C.	Q.	l.
14	1	10
10		

l. 140 Tare of 14 *C.*
l. $2\frac{1}{2}$, of 1 *qr.*
l. $0\frac{2}{4}$ of 10 *l.*

$143\frac{1}{4}$ = Tare required.

Case 7.] When the Allowance for Tare is 12 *l. per Cent.* as of Allom, Salt-petre and Tallow.

Rule.] From $\frac{1}{8}$ of the Gross-weight, take $\frac{1}{7}$ of the Eighth, and the Remainer is Tare.

Example.] What is the Tare of 15 *C.* 3 *Q.* 16 *l.* of Salt-petre, at 12 *l. per Cent.*

	C.	Q.	l.
Gross	15	3	16 at 12 *l. per Cent.*
	1	3	26 is $\frac{1}{8}$ of the Gross.
	0	1	04 is $\frac{1}{7}$ of the 8th, which deduct from the $\frac{1}{8}$.
	1	2	$22\frac{1}{2}$ Tare required, deduct from the Gross.
Remains	14	0	22 Nett.

Case 8.] When the Allowance for Tare is 16 *l. per Cent.*

Rule.] Take $\frac{1}{7}$ of the given Number: (this being done best by the 3d Way) and you have the Tare.

Exam-

Example.] What is the Tare of 10*C.* 2 *Q.* 26*l.* of Currans, at 16*l. per Cent.*

	C.	*Q.*	*l.*
Groſs	10 :	2 :	26 at 16*l.* Tare.
$\frac{1}{7}$ =	1 :	2 :	3
Nett =	9 :	0 :	23

Thus have I given you Rules for deducting the uſual Tares in moſt Commodities, where 112 lb is alllowed to the Hundred Weight; which Methods I referr to the Learner, as the beſt, being brief and commendable according to the Rules in Practice among the beſt Merchants; but if the Learner thinks the forgoing Method charges his Memory too much, he may uſe the following Table of the Decimal parts of 112 *l.* by which he will work Quarters of Hundreds and Pounds, as though they were Hundreds, as ſhall be ſhewed by ſeveral Examples following the Table.

A TA-

A TABLE for the ſpeedy finding the Tare; Shewing what Decimal Part of One Hundred any Number of Pounds are.

Qr.	lb	C.	Qr.	lb	C.	Qr.	lb	C.	Qr.	lb	C.
0	1	.0089	1	0	.25	2	0	.5	3	0	.75
	2	.0178		1	.2589		1	.5089		1	.7589
	3	.0267		2	.2678		2	.5188		2	.7679
	4	.0357		3	.2767		3	.5277		3	.7768
	5	.0446		4	.2857		4	.5367		4	.7857
	6	.0535		5	.2946		5	.5456		5	.7946
	7	.0624		6	.3035		6	.5545		6	.8036
	8	.0714		7	.3124		7	.5634		7	.8125
	9	.0803		8	.3214		8	.5724		8	.8214
	10	.0892		9	.3303		9	.5813		9	.8303
	11	.0982		10	.3392		10	.5902		10	.8393
	12	.1071		11	.3481		11	.5991		11	.8482
	13	.1161		12	.3570		12	.6081		12	.8571
	14	.1250		13	.3660		13	.6170		13	.8660
	15	.1339		14	.3749		14	.6259		14	.8750
	16	.1429		15	.3838		15	.6348		15	.8839
	17	.1518		16	.3927		16	.6438		16	.8928
	18	.1607		17	.4017		17	.6527		17	.9017
	19	.1697		18	.4106		18	.6616		18	.9107
	20	.1786		19	.4195		19	.6705		19	.9196
	21	.1875		20	.4284		20	.6795		20	.9285
	22	.1964		21	.4374		21	.6884		21	.9374
	23	.2054		22	.4463		22	.6973		22	.9464
	24	.2143		23	.4552		23	.7062		23	.9553
	25	.2232		24	.4641		24	.7152		24	.9642
	26	.2321		25	.4731		25	.7241		25	.9731
	27	.2411		26	.4820		26	.7330		26	.9821
				27	.4919		27	.7419		27	.991

The Calculation of this Table.

This is no more than what is taught in Example 4. of Section 7. of Chapter 8. of this Book.

Example.] Admit I would know what Decimal part of a Hundred 2 Quarters 27 Pound is.

In

In 2 Quarters 27 Pound are 83 Pound, or $\frac{83}{112}$ C. which by the Rule in the ſaid ſeventh Section of Chap. 8. Example 1. is thus reduced to a Decimal.

112 : 83 :: 10000
83

C.
112) 830000 (.7410 Anſwer.
....
460
120
80

By the Work you may ſee that the 2 Quarters 27 Pound is .7410 C. and is the Tabular Number, anſwering 2 Quarters 27 Pound; the Uſe of the Table in Allowance for Tare is as followeth.

The Uſe of the Table foregoing.

Example 1.] What is the Nett-weight of the 4 Sacks of Cotton mentioned in Caſe 2. of this Section, the Groſs-weight of which is 9 Hundred, 3 Quarters 24 Pound?

Rule.] Take the Decimal of 3 Quarters, 24 Pound out of the Table which is .9642: Then deduct 4 Pound Tare from 112, and the Remainer is 108 Nett pounds in 112 Groſs, as we ſhewed before: Therefore multiply 9.9642 C. by 108, and the Product is Nett-pounds, and parts of a Pound.

9.9642 C.
108
7.97136
9.9642
1076.1336 Nett-pounds for Anſwer; which is the ſame as in the ſaid ſecond Caſe of this Section, as you may prove by reducing that Nett-weight into Pounds.

Exam-

Example 2.] Let it be required to find the Nett-weight of the 10 Hundred, 2 Quarters, 26 Pound of Currans mentioned in *Case* 8. foregoing.

In order to perform which, I look in the Decimal Table, what part of 1 Hundred, 2 Quarters and 26 Pound is, and find it .733; and having deducted the 16 Pound Tare from 112, the Remainer is 96; wherefore I multiply 10.733 by 96, and the Product is Nett-pounds.

10.733 Hundred
96 Nett-pound in 1 C. } Multiply

64398
96597

1030.368 Nett-pounds, which is equal to the Pounds contained in 9 Hundred, 00 Quarters, 23 Pound the Nett-weight of the Currans in the said 8th Case.

Case 9.] When the Hundred weight is 5 Score, how to deduct the Tare at *5 l. per ent.*

Rule.] Take $\frac{1}{20}$ of the given Number, and you have the Tare required.

Example 3.] What is the Tare of 5 Baggs of Cotton-yarn from *Alleppo*, Weight 1099 Pound at *5 l. per Cent.*.

lb
$\frac{1}{20}$ of 1099 Gross
|

is 5 *fere* for Tare.

1045 Nett.

By the various Examples in the Cases foregoing, you may easily know how to make Allowance for Tare at any rate *per Cent.* but in many Commodities the Allowance for Tare is not reckoned *per Cent.* But so much of the Gross, called Invoice-Tare, thus.

Case 10.]

Caſe 10.] When the Tare of Raw-Silk from *Smyrna* or *Cyprus* is to be deducted, the

Rule.] Is (by the Book of Rates) to allow 16 Pound Tare for 3 Hundred Weight and upward; from 3 Hundred Weight, down to 200 Weight 14 Pound Tare; and from 200 Weight downwards, is allowed 12 Pound Tare.

Example 1.] What is the Tare of 4 Bails of Raw-Silk, Weight 1088 Pound (Averdupoize?) Anſwer 58 Pound.

		lb		lb
N° 1.	Qt.	346,	Tare	16
3.		300,	Tare	16
4.		284,	Tare	14
8.		158,	Tare	12
Total Groſs		1088	Tare	58
		58		
Remains lb 1030 Nett.				

Example 2.] Likewiſe in *Virginia* Tobacco, all Hoggsheads under 3 Hundred Weight, allow 70 Pound Tare, from 3 Hundred to 4 Hundred 80 Pound, from 4 Hundred to 5 Hundred 90 Pound, and from 5 Hundred Weight upward 100 Pound Tare.

So in the 6 Hoggsheads following, Weight 27 Hundred, 1 Quarter, 00 Pounds, the Tare is 4 Hundred, 3 Quarters, 8 Pound.

	C.	Q.	lb		C.	Q.	lb
N° 5	2:	3:	4,	Tare	0:	2:	14
6	3:	1:	12,	Tare	0:	2:	24
8	4:	2:	00,	Tare	0:	3:	06
9	5:	1:	12,	Tare	0:	3:	16
10	5:	2:	08,	Tare	0:	3:	16
12	5:	2:	20,	Tare	0:	3:	16
Total Groſs	27:	1:	00,	Tare	4:	3:	08
Total Tare	4:	3:	08,	Deduct			
Reſteth Nett	22:	1:	20				

It would be needleſs to give any more Examples of the deducing Tare, ſince by knowing the uſual Tare for any Commodity according to the Cuſtom of any Port, the Learner may by the help of the foregoing Rules be able with Speed and Exactneſs to make any Allowance deſired. I ſhall therefore conclude this Section with one Example of Allowance for Tare and Trett.

Caſe 11.] When Allowance is required for Tare and Trett.

Rule.] Find what is to be allowed for Tare according to the Rules foregoing, which having deducted, the Remainer (as was ſaid at the beginning of this Section) is Suttle, which reduce into Pounds and divide by 26 (becauſe that is $\frac{1}{4}$ part of 104) and the Quotient is what is to be allow'd for Trett, which deduct from the Suttle and the Remainer is Nett.

Example.] What is the Nett-weight of the Puncheon of Pruons following, Allowance being made of 14 Pound at 112 for Tare, and 4 Pound at 104 for Trett?

C. Q. l.

1 Puncheon at 9: 2: 10 Groſs at 14 Pound Tare *per Cent.*

$\frac{1}{8}$ is 1: 0: 22 Tare, deduct

Remains 8: 1: 16 Suttle

8
84
84

940 Pound Suttle, which divide by 26, and you have
36 Pound Trett, deduct

904 Pound Nett, For Anſwer.

Note, that Trett, and 2 Pound at every 300 Weight for Draught, is uſually allowed in the Port of *London* for Cinamon, Cloves, Mace, Tobacco, Cotton, Yarn, Cotton-wool, and other things that have Waſte.

S. 3. *Con-*

§. 3. *Concerning Bartering.*

Merchants are ſaid to Barter, when they Exchange one Commodity for another; but there is much more difficulty in the Name, than the Rule; for that is no other than the Rule of Proportion which has been taught already, as will appear by the Example following.

Caſe 1.] When two Merchants Barter, and each rateth his Goods ſold in Barter, as though they were ſold for Ready-money.

Rule.] Let one Merchant conſider what the Goods he is minded to Barter amounteth to: Then, by the Rule of Proportion, ſee how much of the other Merchant's Commodity the ſaid Amount will buy, and ſo much muſt be given.

Example.] A Merchant has 18 Hundred 2 Quarters of Coffee-berries at 14 Pound 10 Shillings *per Cent.* which he is willing to Barter with another Merchant for Lime-juice at 20 Pence the Gallon; how much Lime-juice muſt the ſecond Merchant give the firſt for his Coffee-berries?

The Price of the firſt Merchant's Coffee is thus by Practice.

C. Q. l. s.
18: 2 at 14: 10 *per Cent.*
14

72
18

252 Pound at 18 *l.*
9 *l.* at 10 *s.*
7 *l.* 5 *s.* for the half Hundr.

The Value of the Coffee 268 *l.* 5 *s.*

d. Gal. l. s.
20: 1:: 268: 5
20

5365
12

20.) 64380 *d.* (3219 Gall. Anſwer.

By the Work I find, that if 20 Pence buy one Gallon of Lime-juice, 268 *l.* 5 *s.* or 64380 *d.* will buy 3219 Gallons: and ſo much muſt the ſecond Merchant give the firſt for his Coffee-berries.

Caſe 2.] When two Merchants Barter, and the one rateth his Goods above the common Price for Ready-money, to know how the other Merchant may advance the Price of his Goods in proportion to the firſt Merchant, and how to Barter without Loſs thereby.

Rule.] Conſider what the firſt Merchants Goods are worth *per* Integer in Ready-money, and how much he advanceth the Price in Barter; then ſay, if the Price of a Unit of the firſt Merchant's Commodity advance ſo much in Barter (mentioning the Difference between his Ready-money and Bartering Prices,) how much muſt the Price of a Unit of the ſecond Merchant's Commodity advance above the Ready-money rate in Barter: which having found, Work according to the Bartering Prices of each; as in the laſt Example.

Example.] A Merchant hath 15 Hundred, 1 Quarter of *Alleppo*-Gauls, which he valueth at 5 Pound 6 Shilliugs 8 Pence *per* Hundred Ready-money; but in Barter he will have 5 Pound 10 Shillings *per* Hundred. Another Merchant hath *Jambee*-Pepper at 14 Pence the Pound Ready-money; how much Pepper muſt the ſecond give the firſt for his Gauls, advancing his Price in Barter proportionably? Anſwer, $1394\frac{66}{331}$ Pound of Pepper. See the Operation.

l.	*s.*	*d.*		*s.*	*d.*	*d.*		
5 :	6 :	8 :		3 :	4 : :	14		
20				12		40		
106 Shill.				*d.* 40		*d.* 560		
12						4		
1280 *d.*				1280)		2240	*Qrs.*	($1\frac{96}{128}$ or $1\frac{3}{4}$ *Qrs.*
						96		

Here you ſee, that if 5 *l.* 6 *s.* 8 *d.* (or 1280 *d.*) advance 3 *s.* 4 *d.* in Barter; then 14 *d.* muſt advance $1\frac{3}{4}$ Farthing. So that now the Gauls being 5 *l.* 10 *s.* or 1320 *d. per* Hundred, the Pepper is to be reckoned 14 *d.* $1\frac{3}{4}$ *q. per* Pound.

Then

Then find the Value of the Gauls by adding the Pence in 3 *s.* 4*d.* to the foregoing 1280 *d* which maketh 1320 *d.* by which multiply 15 Hundred 1 Quarter (or 15.25, the Decimal of 1 Quarter being .25) and the Product is the Value of the Gauls in Pence; then find the Anſwer to the Queſtion by the following Proportion; *viz.* If 14 *d.* $1\frac{3}{4}$ *qrs.* buy 1 Pound of Pepper; how many will 20130 *d.* buy?

d.	*q.*	*l.*	*d.*	
14:	$1\frac{3}{4}$:	1::	20130:	15.25 *C.*
4			4 Farthings,	1320 *d. per C.*
$57\frac{3}{4}$ *qrs.*			80520 Farth.	3050
				4575
				1525
				20130.00 *d.*

Or $\frac{231}{4}$ *qr.* By the Firſt Caſe of Reduction of Vulgar Fractions.

Then by Diviſion of Vulgar Fractions

$\frac{231}{4}$) $\frac{80520}{1}$ ($\frac{322080}{231}$ Anſwer.

Which by the ſecond Caſe of Reduction of Vulgar Fractions is $1394\frac{66}{231}$ Pound of Pepper, and ſo much muſt be given for the Gauls.

§. 4. *Concerning Exchange of Coin.*

IN this Section I ſhall endeavour, with what Brevity I can well, to take notice of ſeveral things, which other Authors, treating on this Subject, have omitted: But which, I preſume, will be very practical and uſefull; and in doing thereof, ſhall diſcourſe theſe Heads.

1. What Exchange is.
2. The Subject of Exchange.
3. The Par of Exchange.
4. The Courſe of Exchange.
5. Some Reaſons of the Riſe and Fall of Exchange.
6. Give ſome Rules for keeping the Courſe near the Par.

I. Exchange of Things, is to give one thing for another; which is likewiſe called Barter or Commutation: But there the Things exchanged

exchanged are always of a different Specie, as Wool for Cloth, Silk for Stuff, *&c.* and when one is received, the other is delivered; or in ordinary Buying and Selling, Money is given for Goods, or Goods for Money; which is ſometimes given the one immediately for the other; and ſometimes, contrary to the former, the Money is paid by Contract a certain time after the Goods are delivered, which is called Buying or Selling on Credit, or at Time: But Exchange (according to the ordinary Notion in Merchandizing) is to give Coin for Coin; *i. e.* The giving a Summ of Money in one place for a Bill, ordering the payment of the like Summ (according to the Value agreed on) in another place. Now ſo often as theſe two Places are in different Countries, the Exchange is Forreign, otherwiſe Inland; of which, and of ſeveral Cuſtoms uſed among Merchants, with reſpect to Drawing and Accepting theſe Bills, and paying and receiving the Value therein, you have a large Account in Section the 1ſt. of Chap. 11.

II. Money (the Subject of Exchange) and Commerce are now inſeparable Companions; (of which we had too great aſſurance in the late Revolution of Coin, where Trade decreaſed, as the Quantity of running Caſh;) though, according to the Opinion of the Ingenious, Trade was firſt carried on without Money, every one being willing to give ſuch Commodities as they were poſſeſſed of, for thoſe of which they ſtood in need.

2. But becauſe, by this means, Men could not at all times fit others Occaſions, it became neceſſary that the Receiver ſhould depoſit a Pledge with the Deliverer to ſupply his need on the like occaſion. And the moſt proper Material for that was found to be Silver, becauſe of its great Value among Men, not only by reaſon of its Natural perfections, as Cleanneſs, Unaptneſs to Ruſt, Ponderouſneſs, *&c.* but alſo of its being leſs common than other Metals, which gave it a juſt Eſteem among Traders, and was therefore pitch'd upon to be a Univerſal Pledge or Meaſure of all Commerce and Traffick, which we find, in Sacred Hiſtory, was ſo about 488 Years after the Flood.

3. But, to prevent the Receiver of this Silver being impoſed on by the Deliverer, incorporating too great a Quantity of a Baſer ſort of Metal with his Silver, (which is not eaſily diſcovered by the Eye,) it became neceſſary the Fineneſs of Silver ſhould be aſcertained by every Government, and to have certain Quantities at certain Values.

4. And

4. And to ſave the Trouble of Weighing and Eſſaying every Piece received, which would greatly obſtruct the Diſpatch of Buſineſs, by which Men ordinarily grow Rich: It became cuſtomary for Princes to cauſe ſuch and ſuch Stamps to be given to the ſeveral Denominations or Quantities of Silver to be a Voucher of the Weight and Fineneſs thereof, which was called Coin, *Moneta* or Money, and is the Condition we have it in at this day; the Antiquity of which Stamping Money, we can trace back no farther than the *Roman*'s time, among whom the Ingenious Mr. *Vaughan* of *Greys-Inn* tells us from the *Roman* Hiſtory, *Servius Tullius* was the firſt.

5. I proceed now to ſhew the Weight and Fineneſs of our own Coin here in *England*; and ſhall, in the next Article or Head, ſhew how the Coin of other Nations agrees in Value thereto; as being ſomething more brief and leſs troubleſome for the Reader to apprehend, than to inſert the Weight and Fineneſs of Foreign Coin, which I have done elſewhere.

6. Fine Silver being too Flexible for Common uſe either in Money or Utenſils, made it neceſſary to harden the ſame by mixing a ſmall quantity of baſer Metal therewith, as Copper or Braſs; which is therefore called Allay; and Money is ſaid to be more or leſs fine in proportion to the quantity of Allay intermixed with a certain quantity of fine Silver: Thus of a Pound of Bullion; if 2 Ounces thereof be Copper, *&c.* the Bullion is ſaid to be 10 Ounces fine, and is not ſo valuable as that which is 11 Ounces fine, *i. e.* that has but 1 Ounce of Allay in it.

7. Hence it is evident that Engliſh Silver being 11 Ounces 2 dw. fine, *i. e.* having but 18 dw. of Allay in 12 Ounces of Bullion, a Pound thereof is more valuable than a Pound of that which is but 9 Ounces fine, as the Dutch; or 10 Ounces fine, as the French, *&c.*

8. Engliſh Silver is called Sterling (as moſt believe from the Name of the firſt Coiners thereof, who were ſent for from the Eaſterly parts of *Germany* by King *Richard* the Firſt, and were called *Eaſterlings.*) And all *Bullion*, having but 18 dw. of Allay in 12 Ounces of Bullion is ſaid to be Sterling fine.

9. The Fineneſs of Engliſh Gold is diſtinguiſhed or aſcertained by the Caract, *viz.* 12 Ounces of Bullion is divided into 24 equal parts, each of which is 1 Caract, and each Caract into 4 Grains; of which 24 Caracts, 2 are Silver and Copper Allay; ſo that there is 22 Caracts of fine Gold, and 2 Caracts of Allay to the Standard of Gold in *England*, which is 22 Caracts fine.

10. Eng-

10. Engliſh Gold and Silver are weighed by *Troy* Weight, *viz.* Pounds, Ounces, dw. (or Peny Weights) and Grains; and according to the common price of Gold and Silver Bullion at preſent (which on extraordinary occaſions does ſomething riſe and fall, but not as other things do) the Weight and Value is as follows.

Of Silver Bullion.

	l.	*s.*	*d.*	*qr.*
The Grain =	00 :	00 :	00 :	$00\frac{1}{2}$
D.weight =	00 :	00 :	03 :	00
Ounce =	00 :	05 :	00 :	00
Pound =	03 :	00 :	00 :	00

Of Gold Bullion.

	l.	*s.*	*d.*	
The Grain =	00 :	00 :	02	—
D.weight =	00 :	04 :	00	—
Ounce =	04 :	00 :	00	—
Pound =	48 :	00 :	00	—

11. Having ſhewed the Value of the ſeveral Denominations of weight of Bullion: I come next to ſhew the Value, Fineneſs and Weight of our Silver and Gold Coin, *viz.*

Silver Coin Calculated according to the Standard of the Mint, (12 Ounces of Bullion being Coined into 62 *s.* at which rate the Crown Piece is 19 dw. 8.516129032 25, *&c.* Grains) is as follows.

Currant Value of Coined Pieces.	*Value as Bullion at* 5 s. per *Ounce.*	*Weight of Coined Pieces.*	*Fineneſs.*
s. *d.*	*s.* *d.* *qr.*	*dw.* *gr.*	
5 : 00	4 : 10 : $0\frac{1}{4}$	19 : $08\frac{1}{2}$	
2 : 06	2 : 5 : $0\frac{1}{8}$	9 : $16\frac{1}{4}$	
1 : 00	0 : 11 : $2\frac{9}{20}$	3 : $20\frac{9}{10}$	$\frac{11}{12}$ *dw.*
0 : 06	0 : 05 : $3\frac{9}{40}$	1 : $22\frac{9}{20}$	11 : 02
0 : 04	0 : 03 : $3\frac{29}{60}$	1 : $06\frac{29}{30}$	
0 : 03	0 : 02 : $3\frac{49}{80}$	0 : $23\frac{9}{40}$	
0 : 02	0 : 01 : $3\frac{89}{120}$	0 : $15\frac{29}{60}$	
0 : 01	0 : 00 : $3\frac{209}{240}$	0 : $07\frac{89}{120}$	

Gold

Gold Coin Calculated according to the Standard of the Mint 12 Ounces of Bullion being Coined into 44½ Guineas; at which rate the Guinea will weigh 5 *dw.* 9.4382, *&c.* Grains; and the other Pieces are for Weight and Value, according to the ſubſequent Table.

Pieces.	*The Currant Value of Coined Pieces.* l. s. d.	*Value at Standard Rate.* l. s. d.	*Value as Bullion at 4 l. per Ounce.* l. s. d. qr.	*Weight of Coined Pieces.* ℥ dw. gr.	*Fineneſs.*
The Guinea	1:02:00	1:00:00	1:01:06:3½	0 05:09⅔	22 Caracts or 11 ℥.
The 5 Guin. Piece	5:10:00	5:00:00	5:07:10:1½	1:06:23	
The ½ Guinea (and quarter in propor.)	0:11:00	0:10:00	0:10:09:1¾	0:02:16 7/10	
Car. or *Jac.* broad 20 *s.* Pieces	1:04:00	1:00:00	1:03:00 —	0:05:18	
Jacobus broad 22 *s.* Pieces	1:06:00	1:02:00	1:05:00 —	0:06:06	

There are other Denominations of Engliſh Gold, as the Angel Gold, or Roſe Nobles, 23 Caracts, 3½ Grains fine; and the Peices of different Weight, from 8 *dw.* 6 *gr.* to 9 *dw.* 18, as alſo the Sovereign Gold, or 20 *s.* Pieces of *H.* 8. but 20 Caracts fine, which I think it not proper to ſay more of, there being few or none to be ſeen Currant now.

12. There are alſo made Currant the French and Spaniſh Piſtoles, about as fine as Crown Gold, and the weight being 4 *dw.* 8 *gr.* the value thereof, at 4 *l.* the Ounce, is 17 *s.* 4 *d.* each, tho' they have through cuſtom long paſſed Currant among us for 17 *s.* 6. *d.* and at preſent for 18 *s.* each.

13. There might ſeveral uſefull Obſervations be drawn from the two foregoing Tables: as that Gold and Silver are dearer in the Coin than in the Bullion at the preſent price thereof, and conſequently, that if there were no Laws againſt it; it's againſt any ones Intereſt to tranſport or melt the Coin down. 2. That the late Regulation of our Coin has brought Bullion to theſe Rates, it being much dearer before. 3. That Gold aud Silver Bullion is as cheap now, as it has been theſe many years paſt, and conſequently, that there is no more reaſon for altering the Standard of our Coin now, than there was 40 years ago. 4. That at the Rate or Proportion of Guineas

Paſſing currant at 22 *s.* each; *s.* *d.*

Piſtoles ought to go for—17 : 8
20 *s.* broad Gold, at——23 : $6\frac{1}{4}$
22 *s.* broad Gold, at——25 : 7

which is leſs than the currant Value of theſe Pieces, as in the firſt Column toward the left hand of the preceding Table doth appear. But theſe, with many other Remarks that may eaſily be made, I leave to the Ingenious the deſign of this work not admitting me to make any farther Excurſion.

14. They that conſider the proportion between Gold and Silver (which may likewiſe be gathered from the foregoing Tables) ought neceſſarily to mention whether of the Analogy of Weight (Bulk for Bulk) or of Value, and at what price they rate each; and whether that price be of fine Gold or fine Silver, or allayed; and whether they mean the price as Bullion at preſent, or at the Standard Rate, otherwiſe their Calculation muſt be uncertain, and they leave the Reader in the dark; therefore to make this matter plain, I have incerted the proportions following, being all the caſes I could think uſefull.

1. The Weight of fine Silver to that of fine Gold (Bulks alike) is,

As 1 to 1.83896, *&c.*

2. Fine Silver to fine Gold, calculated from the Standard Rate, the Pound of fine Gold being worth 48 *l.* 10 *s.* 10 *d.* and fine Silver 3 *l.* 6 *s.* $11\frac{1}{4}$ *d.* is,

As 1 to 14.49, *&c.*

3. Standard Sterling Silver to Standard Crown Gold at Standard Value of 44 *l.* 10 *s.* the Pound of Gold, and 3 *l.* 2 *s.* the Pound of Silver is,

As 1 to 14.354, *&c.*

4. Sterling Silver at 5 *s.* the Ounce to Crown Gold at 4 *l.* the Ounce, is,

As 1 to 16.

5. Sterling Silver to Crown Gold, according to the now currant Value of Silver and Gold 129.4 Grains of Gold paſſing currant for 22 *s.* and 19 *dw.* $8\frac{1}{2}$ Grains of Silver running at 5 *s.* is,

As 1 to 15.79032, *&c.*

6. Fine Gold to Crown Gold, is in Value,

As 1 to .9167, *&c.*

7. Fine

7. Fine Silver to Sterling Silver, is in Value,
As 1 to .9260, *&c.*

And from theſe ſeveral proportions may be deduced many uſefull things relating to the Weight, Fineneſs and Valuation of Gold and Silver. But ſuch as deſire to ſee the proportions that have been formerly between Gold and Silver (as to Value) both in this and other Nations, may read the account in *Lex Mercat.* page 213, *&c.* Mr. *Vaughen*'s Coin and Coinage, *p.* 19; and eſpecially Mr. *Lownds* accurate Report thereof to the Lords of the Treaſury, *p.* 35 to 59 of his Eſſay for the amendment of the Silver Coin; but I think none of theſe contain any thing that can interfere with thoſe above, being more various, and of a different nature from all others made publick.

III. I am next to conſider the Par of Exchange, and to know what is meant by it, will be eaſie, if you know what it is to exchange, for when he to whom a Bill is payable receives of the Acceptor juſt ſo much Money in Value (Weight and Fineneſs conſider'd) as was paid to the Drawer for the Bill, then the Exchange is according to Par, *viz.* Par *pro Pari*, or Value for Value. But before it can be known whether an Engliſh Merchant in his exchange to any foreign Place or Country gains or loſeth by that Exchange, by paying leſs or more than the Par of the Money of the place he exchangeth to (which he often does conſiderably, as will appear by the following Sects of this Chapter) he muſt neceſſarily know the Value of the foreign Coins in Engliſh Money, for which reaſon I have incerted the Tables following, which contain the Values (according to the beſt Accounnt I can procure) at leaſt of all thoſe Denominations of foreign Coin, in which exchanges are made with *England*.

2. The Denominations *England* exchangeth in with other Countries, are in Pounds with *Rotterdam*, *Amſterdam*. *Antwerp* and *Hamburgh*; in Pence with *Paris*, *Cales*, *Madrid*, *Genoa*, *Leghorn*, *Venice*, and all other parts of *France*, *Spain* and *Italy*; in Shillings and Pence with *Lisbon*, *Oporto*, and the reſt of *Portugal*; and by the Hundred Pounds with *Ireland*. And in what Denominations they exchange with us you will ſee in the next Section.

3. The Value of foreign Coins, real and imaginary, in Sterling, according to the reputed Par, is as followeth.

		s.	*d.*	*q.*
French Coin.	1 Denier is Sterling	00	00	$00\frac{3}{10}$
	12 Deniers, or 1 Soulze is	00	00	$03\frac{3}{5}$
	20 Soulze, or 1 Lievre is	01	06	
	3 Lievres, or 1 Crown French is	04	06	
Holland and *Flanders* Coin.	1 Stiver is Sterling	00	$01\frac{1}{5}$	
	6 Stivers, or 1 Shilling Flemiſh is	00	$07\frac{1}{5}$	
	20 Shillings Flemiſh is Sterling	12	00	
	33 Shillings 4 *d.* Flemiſh is Sterling	20	00	
	1 Gilder is 20 Stivers, or	02	00	
	1 *Zealand*, or common Doller	03	00	
	1 Ducattoon	06	$03\frac{3}{5}$	
	1 Specie Dollar	05	00	
Spaniſh Coin.	$13\frac{27}{100}$ Malvadies of *Spain* is Sterling	00	$00\frac{1}{4}$	
	372 Malvadies, or 1 Ryall is	00	$06\frac{3}{4}$	*qrs.*
	8 Ryalls, or a Piece of Eight *Sevil* is	04	06	$1\frac{968}{1000}$
	1 Piece of *Mexico* is	04	06	$1\frac{7}{39}$
	Ditto *Peru* is	04	03	$1\frac{488}{1000}$
	Ditto *Piller* is	04	06	$3\frac{168}{1000}$
Portugal Coin.	12.42 Rees of *Portugal* is Sterling	00	01	
	1 Mill Ree, or 1000 Rees is Sterling	06	$08\frac{1}{3}$	
	1 Feſtoon is	01	03	
Italy and *Venice* Coin.	1 Lievre at *Leghorn* is Sterling	00	09	
	1 Crown currant at *Florance*	05	03	
	1 Ducat *de Banco* at *Venice*	04	04	
	1 St. *Mark*	02	10	
	1 Palermo Florin is 6 Tari, or	02	06	
German Coin.	1 Rix Dollar of the Empire	04	$05\frac{3}{4}$	
	32 *s.* at *Hamburgh*	20	00	
	1 Guilder of *Noremburg* is	07	01	

			℥ *dw.*		*s.*	*d.*	*qrs.*
The Fineneſs of a Piece of Eight.	*Piller*	being	11 : 04	And the weight of it 17 *dw.* 12 *gr.* the Value is	4	6	$3\frac{168}{1000}$
	Sevil		11 : 03		4	6	$1\frac{968}{1000}$
	Mexico		11 : 02		4	6	$1\frac{7}{39}$
	Peru		10 : 10		4	3	$1\frac{488}{1000}$

I have been more exact in the Calculation of the Value of theſe Pieces of Eight, by reaſon they are ſo univerſally uſed in moſt foreign Traffick.

4. And

4. And as their is a Par of Money, ſo is there an Equation of Weights and Meaſures with the *Engliſh*, which is very uſefull in knowing how to value foreign Goods, by reducing the Quantity to Engliſh Weight or Meaſure, and the contrary to value Engliſh Commodities by reducing them to foreign Weights and Meaſures, for which purpoſe I have incerted theſe Tables.

1 *Engliſh* Ell is		*Ells*		lb
In the *Netherlands*,	As at *Antwerp*	1.667		1.041
	Amſterdam	1.695		1.111
	Bridges	1.64		1.02
In *France*,	As at *Paris*	0.95		1.123
		Aulns.	And their Pound	
	Lyons	1.016	Weight is at *London*, Averdupoize,	0.934
	Callais	1.57		0.934
	Roven	1.0		1.109
		Braces.		
In *Italy*,	As at *Venice*	1.96		0.666
	Leghorn	2.00		0.75
	Millan	2.3		0.7

The Uſe of this Table, is,

Admit I would reduce 11465 Aulns of *Lyons* into Ells Engliſh. By the Table I find that 1.016 Auln is 1 Engliſh Ell, therefore ſay,

Auln *Ell* *Aulns* *Ells*
1.016 : 1 :: 11465 : 11284.44 Anſwer.

5. Tables of *Turky* Weights, of which the proportion between a *Turky* and *Engliſh* Dram I received from a Book-keeper to a *Turky* Merchant, and he from Mr. *Normanſell*, which I have reduced to Engliſh Weight as followeth.

A Table of Alleppo *Weight.*

	Drams Alleppo	*Drams Engliſh*	*l. ou. dr. Engliſh*
1 Rottello =	720	= 1260 =	4 : 14 : 12
1 Rottello =	700	= 1227 =	4 : 12 : 11
1 Rottello =	680	= 1194 =	4 : 10 : 10
1 Kintall =	68000	= 119231 =	465 : 11 : 15

Table

A Table of Smirna *Weight.*

	Smirna Drams	*Engliſh Drams*	*Engliſh* *l.* *ou.* *dr.*
	0.57 =	1 or	00 : 00 : 01
	1.00 =	1.753 =	00 : 00 : $01\frac{3}{4}$
	146.0 =	256.0 =	01 : 00 : 00
1 Rottello =	180 =	315 =	01 : 03 : 11
1 Oke of =	400 =	701 =	2 : 11 : 13
1 Oke of =	250 =	438 =	1 : 11 : 06
1 Oke of =	120 =	210 =	0 : 13 : 02
1 Kintall =	18000 =	31545 =	123 : 03 : 09
1 Kintall of =	17600 =	30844 =	120 : 07 : 12
1 Batman =	2400 =	4207 =	16 : 06 : 15
1 Chique =	800 =	1402 =	5 : 07 : 10

6. *The Conſtruction and Uſe of the Table of* Aleppo *Weight.*

The true *Alleppo* Rotello is 720 Drams, and is equal to 4 *Smirna* Rottello's, and by this Rottello all Goods of *Alleppo* are weighed.

By the ℔ of 700 Drams white Silk is only weighed.

By the ℔ of 680 Drams, *Perſia* Silk, as Legee and Ardaſs are paid for, but they are weighed by the ℔ of 700 Drams.

The Reduction of theſe Weights will be eaſie to all that underſtand but Multiplication and Diviſion, for any number of *Smirna* ℔ (or Rotello's) are reduced to *Alleppo* ℔ by dividing by 4; and the *Alleppo* into *Smirna* by multiplying by 4. Or the ℔ of 720 Drams are reduced to thoſe of 680 by multiplying the given ℔ by 720 and dividing by 680, and the contrary for reducing ℔ of 680 to thoſe of 720 Drams.

7. *The Conſtruction and uſe of the Table of* Smirna *Weight.*

By the Oke of 400 Drams are weighed Cloves, Mace, Pepper, Benjamin, Gum-Arabick, Sea-Horſe Teeth, Galbanum, Ginger, Indigo, Gumtragant Vachetoes, White Cordefant Scammony, Wormſeed, Coucheneal, Salſa Parella, Nutmegs, Cinnamon, Rubarb, Senna and Caſſia.

By the Oke of 250 Drams is weighed Opium. And by that of 120 Drams, Saffron.

There are 2 ſorts of Kintalls: The firſt containing 45 Okes of 400 Drams each or 18000 *Smirna* Drams. By which Kintall is weighed

weighed Gauls, Allum, Cotton-Yarn, Lead, Brazile-wood, Valonia, Logwood, Steel, Sugar, Bees-Wax and Gum-Almonds.

The ſecond Kintall contains 44 Okes of 400 Drams each, or 17600 *Smirna* Drams, by which they weigh Cotton Wool, Sheeps Wool, Tinn, Box-wood and Anniſ-ſeeds.

The Batman contains 6 Okes of 400 Drams each, or 2400 Drams, by which they weigh Legee, Ardaſs and Sherbafee-Silk.

The Chique contains 2 Okes of 400 Drams each, by which they weigh Goats Hair.

The Uſe of the Table of Smirma *Weight.*

If you would reduce any kind of Merchandize, which you have weighed to you in this Weight, either into ſome other Denomination of *Turky*, or into *Engliſh* Weight, this is the

General Rule.] Multiply the Number given by the Tabular Number anſwering a Unit of the ſame Denomination, and divide the Product by the Tabular Number anſwering to a Unit of the Denomination into which you would reduce the given Number and the Quotient is the Anſwer: Always obſerving to multiply and divide by the *Smirna* Weight, when you would reduce into *Smirna* Weight. And to multiply the Number given by the Engliſh Drams in a Unit of that Denomination, and afterward reduce thoſe Drams into Pounds.

Example.] In 470 Okes of Saffron, each 120 Drams, how many Rottello's?

Rule.] Multiply 470 by 120, and the Product divide by 180, and the Quotient is Rotello's $313\frac{1}{3}$.

Or if you would reduce the 470 Okes into Pounds Engliſh; multiply the ſame by 210, Engliſh Drams in that Oke, aud the Quotient is Engliſh Drams for Anſwer, which reduce into Engliſh Pounds; thus,

470 Okes given.
210 Drams in the Oke.

47
94

	ou.	*l.*	*ou.*	*dr.*
16) 98700 Drams Engl.	(6168	(385	: 08	: 12 Anſwer.
12 Drams rem.	8 *ou.* rem.			

8. How

8. In calculating Money according to Par. You muſt know there is more difficulty in this matter than moſt People imagine, yet I do not find that any one has diſcuſt it ſo plain to a mean Capacity as might be wiſh'd, but ſince it is a thing ought to be certainly known and underſtood, becauſe of great uſe among Merchants, I have for their ſakes (for whoſe ſervice this whole Treatiſe is calculated) made the thing as plain as I can, as follows.

9. The firſt thing then to be conſider'd, is, that all foreign Coin is Bullion to us, and ours Bullion to them, ſo that the extrinſick Value is not regarded in Exchange.

10. The ſecond thing conſiderable, is the Fineneſs of our own Coin, and the Weight and Fineneſs of the foreign, which we are to receive in Exchange; and this Knowledge of the foreign muſt be acquired either to be ſo by the Experience of ſome authentick Author, or by the Merchants actual Aſſaying and Weighing of ſome of the ſame Pieces.

Thus for Example. Admit it were required to know how much Sterling Bullion or Coin may be given for 1000 Pieces of Eight *Sevil.*

	℥ *dw.*
The Fineneſs of our own Bullion or Coin I know is	11 : 2
And the Fineneſs of a Piece of 8, I find to be	11 : 3
And its Weight 17 *dw.* 12 *grs.*	
Or the Weight of 1000 Pieces I find	875 : 0

11. The third thing is to know how many Ounces of Silver 11 Ounces 2 *dw.* fine, is equal to 875 Ounces of 11 Ounces 3 *dw.* fine, which is found by ſingle Indirect Proportion, thus,

℥ *dw.*	℥	℥ *dw.*	℥
11 : 3 .	875 .	11 : 2 .	878.94144 Anſwer.

Here I find that I may give 878.94144 Ounces of Bullion, 11 Ounces 2 *dw.* fine, for 875 Ounces of Bullion of 11 Ounces 3 *dw.* fine, (or for 1000 Pieces of Eight *Sevil*) which if I pay in Coin, I muſt for the 1000 Pieces of Eight, pay 227 *l.* 1 *s.* 2¼ *d.* Sterling, for,

Grains	*l. Sterl.*	*Grains*	*l. Sterl.*
1858.0645 .	1 ::	421891.89 .	227 059

That is to ſay; as 1858.0645 (the Grains in 1 Pound Sterling) is in Proportion to 1 Pound Sterling.

So is 421891.8912 (the Grains in 878.94144 Ounces of Bullion 11 Ounces 2 *dw.* fine, which are equal in Value to the 1000 Pieces of Eight.)

To

To 227.059 *l.* Sterling, or 227 : 1 *s.* 02¼.

But ſo often as I can buy 878 941 Ounces of Bullion for leſs than 227 *l.* 1 *s.* 2¼ *d.* (which I can always do ſo often as Sterling Silver is under 5 *s.* 2 *d. per* Ounce) ſo often I gain, by making my Exchange in Bullion; as ſuppoſe I can buy Bullion for 5 *s.* 1 *d. per* Ounce, at that Rate the 878.941 Ounces (which I am to give for the 1000 Pieces of Eight) will ſtand me in 223 *l.* 7 *s.* 11½ *d.* which is leſs than 227 *l.* 1 *s.* 2¼ *d.* (the Summ I pay exchanging in Coin) by 3 *l.* 13 *s* 2¾ *d.* which is my gain by exchanging in Bullion. And thus in Exchanges the Par of Money and Bullion ought to be conſidered as well as the Par of the Domeſtick and Foreign Coins.

13 But though the foregoing Rules contain a true method of calculating Money according to Par, yet ſince the price of Exchange is generally agreed on, that ſo many Pounds or Pence Sterling ſhall be paid for a piece of Eight, or other Denomination of foreign Coin, it is more uſefull and ſatisfactory to know how much Sterling Money each of thoſe foreign Pieces are worth, than to know only their Weight and Fineneſs, and how much Bullion of ſuch a Fineneſs is worth ſo much leſs or more fine, and for this reaſon I have in the foregoing Table, under Article the 3d. of the 3d. general Head, of the Par of Exchange, ſhewed the true Value of each Piece of foreign Coin, ſo that by Inſpection the Merchant may know (when a Bill is drawn on him, or by ſeeing the Price currant of Exchange) whether that Price (called the Courſe of Exchange, which I ſhall ſpeak to next) be above or below the Par, and conſequently whether himſelf or the Nation gain or loſe thereby.

IV. The Courſe of Exchange is the currant or running Price of Exchange to all places where there is any, which is ſometimes above, ſometimes below the Par, according as the ſame is influenced by the Accidents and Circumſtances of Trade and Nations, and this differs only from the Par in this: That the Par of Exchange ſhews what other Nations ſhould allow in Exchange, which is certain and fixed. But the Courſe ſhews what they will allow in Exchange; which is uncertain and contingent.

2. And though there are Tables of the Courſe of Exchange publiſhed once or twice every Week, yet I find the Generality of Perſons ignorant of the meaning thereof, which induced me to explain the ſame as followeth.

The Course of Exchange October 20. 96.			*Par of Exchange.*
Amsterdam	31 *s.* 06 *d.*	Flemish for 1 *l.* Sterling	33 *s.* 4 *d.* Flem.
Rotterdam	31 *s.* 08 *d.*	Flem. for 1 *l.* Sterling	33 *s.* 4 *d.* Flem.
Antwerp	31 *s.* 05 *d.*	Flem. for 1 *l.* Sterling	33 *s.* 4 *d.* Flem.
Hamburgh	30 *s.* 04 *d.*	for 1 *l.* Sterling	32 *s.* 0
Madrid	56½ *d.* Sterling	for 1 piece of 8. *Mex.*	54¼ *d.* Sterling.
Cales	56½ *d.* Sterl.	for 1 piece of 8. *Mex.*	54¼ *d.* Sterling.
Genoa	62½ *d.* Sterl.	for 1 piece of 8. *Mex.*	54¼ *d.* Sterling.
Leghorn	62½ *d.* Sterl.	for 1 piece of 8. *Mex.*	54¼ *d.* Sterling.
Venice	59½ *d.* Sterl.	for 1 Ducat	52 *d.* Sterling.
Paris	51 *d.* Sterl.	for 1 Crown *French*	54 *d.* Sterling.
Lisbon	6 *s.* 6 *d.* Sterl.	for 1 Millree	6 *s.* 08¾ *d.* Sterl.
O-Porto	6 *s.* 5 *d.* Sterl.	for 1 Millree	6 *s.* 08¾ *d.* Sterl.

Note, That Bills are usually drawn to and from *Dublin* in *Ireland.* payable at 21 days. And the Exchange sometimes 8, 9, 10, *&c.* Pounds *per Cent.* allowed for return.

The Table is so plain, it needs no Construction, for it shews that on the 20th of *October*, 1696, the Course of Excange to *Amsterdam* was 31 *s.* 6 *d.* Flemish for 1 Pound Sterling, which is 1 *s.* 10 *d.* Flemish *per* Pound loss to us, it being so much under the Par, or 33 *s.* 4 *d.* and so of the rest.

3. A TABLE Shewing how much Sterling Molars, Ducats, Pieces of Eight, Flemish-pounds,

Pieces of Foreign Coin,	At 48 *d.* *per* Ps.	At 49 *d.* *per* Ps.	At 50 *d.* *per* Ps.	At 51 *d* *per* Ps.	At 52 *d.* *per* Ps.	At 53 *d.* *per* Ps.	At 54 *d.* *per* Ps.	At 55 *d.* *per* Ps.	At 56 *d.* *per* Ps.
1	000.2	000.204	000.208	000.212	000.217	000.221	000.225	000.229	000.233
2	000.4	000.408	000.417	000.425	000.433	000.442	000.45	000.458	000.467
3	000.6	000.612	000.612	000.637	000.65	000.667	000.675	000.687	000.7
4	000.8	000.816	000.833	000.85	000.867	000.883	000.9	000.917	000.933
5	001.0	001.021	001.042	001.062	001.083	001.104	001.125	001.146	001.167
6	001.2	001.225	001.25	001.275	001.3	001.325	001.35	001.375	001.4
7	001.4	001.429	001.458	001.487	001.517	001.546	001.575	001.604	001.633
8	001.6	001.633	001.671	001.7	001.733	001.767	001.8	001.833	001.867
9	001.8	001.837	001.875	001.912	001.95	001.937	002.025	002.062	002.1
10	002.0	002.042	002.083	002.125	002.167	002.208	002.25	002.292	002.333
20	004.0	004.083	004.167	004.25	004.333	004.417	004.5	004.583	004.667
30	006.0	006.125	006.25	006.375	006.5	006.612	006.75	006.875	007.0
40	008.0	008.167	008.333	008.5	008.667	008.833	009.0	009.167	009.333
50	010.0	010.208	010.417	010.625	010.833	011.042	011.25	011.458	011.666
60	012.0	012.25	012.5	012.75	013.0	013.25	013.5	013.75	014.0
70	014.0	014.292	014.583	014.875	015.167	015.458	015.75	016.042	016.333
80	016.0	016.333	016.667	017.000	017.333	017.666	018.0	018.333	018.667
90	018.0	017.375	018.75	019.125	019.5	019.875	020.25	020.625	021.0
100	020.0	020.417	020.833	021.25	021.667	022.083	022.5	022.917	023.333
200	040.0	040.834	041.667	042.5	043.333	044.167	045.0	045.833	046.667
300	060.0	001.25	062.5	063.75	065.0	066.25	067.5	068.75	070.0
400	080.0	081.667	083.333	085.000	086.666	088.333	090.0	091.667	093.333
500	100.0	102.083	104.167	106.25	108.333	110.417	112.5	114.583	116.667
600	120.0	122.5	125.000	127.5	130.0	132.5	135.0	137.5	140.0
700	140.0	142.917	145.833	148.75	151.666	154.583	157.5	160.416	163.333
800	160.0	163.333	166.667	170.0	173.333	176.667	180.0	183.333	186.667
900	180.0	183.75	187.5	191.25	195.0	198.75	202.5	206.25	210.0
1000	200.0	204.167	208.333	212.5	216.666	220.833	225.0	229.167	233.333
2000	400.0	408.334	416.667	425.0	433.333	441.667	450.0	458.333	466.667

ney is contained in any Number of Crowns, Dol- &c. from 1 to 2000.

Pieces of Foreign Coin,	At 57 *d.* per Ps.	At 58 *d.* per Ps	At 59 *d.* per Ps.	At 60 *d.* per Ps.	At 33 *s.* per Ps.	At $\frac{1}{4}$ *d.* per Ps.	At $\frac{3}{8}$ *d.* per Ps.	At $\frac{5}{8}$ *d.* per Ps.	At $\frac{7}{8}$ *d.* per Ps.
1	000.237	000.242	000.246	000 25	000.606	00.001	00.002	00.003	00.004
2	000.475	000 483	000.492	000.5	001.212	00.002	00.003	00.005	00.007
3	000.712	000.725	000 737	000.75	001.818	00.003	00.005	00.008	00.011
4	000.95	000.967	000.983	001.0	002.424	00.004	00.006	00.010	00.014
5	001.187	001.208	001.229	001.25	003.03	00.005	00.008	00.013	00.018
6	001.425	001.45	001 475	001.5	003 636	00.006	00.009	00.015	00.022
7	001 662	001.692	001.721	001 75	004.242	00.007	00.011	00.018	00.025
8	001.9	001 933	001 967	002.0	004.848	00.008	00.012	00.021	00.029
9	002.137	002.175	002 212	002.25	005.454	00.009	00.014	00.024	00.033
10	002 375	002.417	002 458	002.5	006.060	00.010	00.016	00.026	00 035
20	004.75	004.833	004.917	005.0	012.121	00.021	00.031	00.052	00.073
30	007.125	007.25	007.375	007.5	018.181	00.032	00 047	00.078	00.109
40	009 5	009.667	009.833	010.0	024.242	00.042	00.062	00.104	00.146
50	011.875	012.083	012 292	012.5	030.303	00.052	00.078	00.130	00.182
60	014.25	014.5	014.75	015.0	036.364	00.062	00.094	00.156	00.219
70	016.625	016.917	017.208	017.5	042 424	00.073	00.109	00.182	00 251
80	019.0	019.333	019.667	020.0	048.485	00.083	00.125	00.208	00.292
90	021.375	021.75	022.125	022.5	054 545	00.094	00.141	00.234	00.328
100	023.75	024.167	024.583	025.0	060.606	00.104	00.156	00.26	00.365
200	0475.	048.333	049.167	050 0	121.212	00 208	00.312	00.521	00.729
300	071.25	072.5	073.75	075.0	181.818	00.312	00.469	00.781	01.094
400	0950	096.667	098 333	100.0	242 424	00.417	00 625	01.041	01.458
500	118.75	120.833	122.917	125 0	303.03	00.521	00.781	01.301	01.823
600	142.5	145 0	147.5	150.0	363.636	00.625	00.937	01.561	02.190
700	166.25	169.167	172.083	175.0	424.242	00.729	01.093	01.822	02.552
800	190.0	193 333	196.667	200.0	484.848	00.833	01.249	02.083	02.917
900	213.75	217.5	221.25	225.0	545.455	00.937	01.406	02.344	03.281
1000	237.05	241.667	245.833	250.0	606.060	01.042	01.562	02.604	03.646
2000	475.0	483.333	491 667	500.0	1212.121	02.083	03.125	05.209	07.291

The Conſtruction of the Table foregoing.

The firſt Column toward the left hand is any number of Crowns, Dollars, Ducats, Pieces of Eight, Flemiſh-pounds, or any other Denomination of Foreign Coin, whoſe Value is as expreſſed at the Head of each Column; the 13 Columns next, ſhew the Sterling Money that any Summ of Foreign Coin is equal to, at any Rate from 48 *d.* to 60 *d* Sterling, for each Piece of Foreign Coin. The 5th. Column from the Right hand, ſheweth how many Pounds Sterling are contained in any Number of Flemiſh-Pounds from 1 to 2000 at the Rate of 33 *s.* Flemiſh for 20 *s.* Sterling. The four Columns next the Right hand, ſhew the Amount of any Piece of Coin at $\frac{1}{8}$, $\frac{3}{8}$, $\frac{5}{8}$ or $\frac{7}{8}$ of a Penny *per* Piece, whoſe Uſe ſhall be ſhewed by and by.

The Calculation of the Table.

Multiply any of the Numbers at the Head of a Column by any of thoſe in the Column next the Left hand, and the Product is the Tabular Number anſwering the ſaid two Numbers in Sterling Money, except the Column of Flemiſh-pounds, which is thus calculated:

As 33 Shillings Flemiſh
Is in proportion to 1 Pound Sterling,
So is 20 Shillings Flemiſh
To .6 06069 *l.* Sterling, which Number being multiplied by any of the Numbers in the Column next the Left hand, produceth the reſpective Number in Sterling Money, anſwerable to the aforeſaid Number in the Left-hand Column, ſuppoſing them Flemiſh-pounds.

The Uſe of the Table in caſting up Bills of Exchange.

Admit you would know how much Sterling Money is contained in 1000 Dollars, each 60$\frac{1}{2}$ *d.* Sterling?

Look for 1000 in the Column next the Left-hand, and in a right Line toward the Right hand under 60 *d.* is 250.0 *l.*

Then look under $\frac{1}{4}$ *d.* and you find 1.042 which doubled (for the $\frac{1}{2}$ *d.*) is —— 2.084 *l.*

The Summ of which is the Anſwer, which makes Sterling —— 252.084 *l.*

Note, That if the Summ given of Foreign Coin is 1500, 1820, 2500, *&c.* you may take the Anſwer out at twice or thrice.

V. I have hinted before that there are accidental or contingent Cauſes of the Riſe and Fall of Exchange, and theſe Cauſes are either general or more particular.

2. The Cauſes in general of the Fall of Exchange is when any thing happeneth in a Nation or Place, that interrupts and obſtructeth the Courſe of Trade, ſo that it cannot be carried on in ſo good Order, or in ſo great Quantity in the Groſs, as it formerly uſed to be, the contrary whereof maketh the Courſe of Exchange riſe in favour of that Nation. Now theſe accidental Interruptions happening in one, two, *&c.* places of a Nation or Country unknown to the reſt thereof, gives occaſion for ſome to aſſert, that the Riſe and Fall of Exchange, is unaccountable only in truth becauſe they cannot ſurvey and diſcern the circumſtances of the whole body of Trade, ſo well as they can their own, or perhaps that of the Town in which they reſide. But more particularly,

3. When the Ballance of Trade runneth againſt a Nation, *i. e.* when a Nation has more occaſion to pay Debts in foreign parts, than they have to receive from thence; in this caſe, the Courſe of Exchange will run low againſt ſuch a Nation, which Ballance of Trade is only perceiveable by its Effects, the greateſt and moſt viſible of which, is the raiſing the Courſe of Exchange.

4. Another cauſe of the Exchange running low againſt any Nation, is, when the Coin thereof is debaced or diminiſhed either in Weight or Fineneſs (as I have ſhewed more at large on another Occaſion) this we have lately had a Specimen of, when our coined Silver was ſo prodigiouſly Clipt, that near $\frac{1}{3}$ was diminiſhed. And coined Gold at 30 *s.* that was coined but at 20 *s.* the *Dutch* (and other Nations in like manner) allowed us but 26 and 27 *s.* Flemiſh for 20 *s.* Sterling, whereas, now ſince the amending our Silver and lowering the Value of our Gold Coins the *Dutch* have allowed us (and other Nations proportionably) 35 *s.* for 20 *s.* Sterling.

5. The Riſe or Fall of Bullion riſes or falls the Courſe of Exchange.

6. When any Nation is obliged to maintain an Army out of their own Conntry, this will fall the Courſe of Exchange againſt ſuch a Nation.

7. Sometimes Embargoes, ſometimes contrary Winds, ſometimes too great Encouragement of Importing Foreign and Diſcouragement of Exporting Inland Goods, *&c.* lower the Courſe of Exchange, tho' not immediately, but by influencing the Ballance of Trade.

But theſe Cauſes are ſufficient, to ſuch as were ignorant thereof before, and for ſuch as were not, they will be as apt to gueſs at the other Cauſes of the Riſe and Fall of Exchange, as I can be to inform them.

VI. As the Preſcription of fit and proper Remedies do naturally reſult from a right Apprehenſion of the Cauſe of a Diſtemper or Irregularity; ſo do the Rules I am now upon, from the Cauſes delivered in the laſt general Head, which might be a ſufficient Reaſon for me to leave every one to draw their own Conſequences; yet becauſe ſome young Tyroes might be miſled, I ſhall give them what aſſiſtance I am able in the matter.

2. The firſt Rule that may be given to keep the Courſe of Exchange as high as the Par, is to keep our ſelves from being indebted to Foreigners, which ſome would have done, by keeping a ſtrict Account of the Ballance of Trade; but that being impoſſible, having never been done, nor never like to be, I rather adviſe that every particular Merchant be obliged to take care that his Exports be equivolent to his Imports, which would every Merchant do (tho' this would not diſcover the Groſs Summs of the Value of the Exportations and Importations in the whole body of Trade, which ſome have induſtriouſly ſought after in order to know the whole Ballance, yet) it would keep us without a Ballance of Trade, or that it would not lie on our ſide, which would certainly for the moſt part keep the Courſe of Exchange up to the Par.

3. A ſecond Rule may be, that the Government take care that no Money be made or permitted to paſs Currant, that is not according to the preſent Standard for Weight and Fineneſs, for it was on this Rock, of ſuffering baſe and clipt Money to paſs, that we had like to have ſplit very lately, and which had miſerable Effects on Trade, and more particularly on the Courſe of Exchange.

4. A third Rule may be that Embargoes be not laid on Shipping outward or inward, eſpecially the former, unleſs upon extraordinary Occaſion, and that if an Embargo be laid for any conſiderable time it may extend to Shipping inward for the ſame time it does to thoſe outward.

5. A fourth Rule may be, That before any Commodity be prohibited or encouraged to be Exported or Imported the moſt able and diſintereſted Merchants be conſulted, who are moſt likely to diſcern the Conſequences thereof, and that no Goods be prohibited eſpecially Exportation without abſolute neceſſity. 6. That

6. That due encouragement be given to Importation of Gold and Silver Bullion.

§. 5. *Concerning Intereſt of Coin.*

Among the various uſes of Money this of lending at Intereſt is ſaid to be moſt unnatural, becauſe remoteſt from its natural Inſtitution and Uſe of Money which was for a pledge in Buying, *&c.* but notwithſtanding that, it is certainly little inferior in Advantage both to Lender and Borrower, to the other Uſes made thereof; nor is it accounted by any but Enthuſiaſtical Conceited Heads, a Uſe leſs warrantable than any other that is made of Money, lending and borrowing Money upon Intereſt being a thing practiſed by moſt if not all the Governments in the Trading part of the World.

2. The two material things conſiderable in Borrowing and Lending Money at Intereſt (to ſay nothing of Securities) is,

1. The Rate of Intereſt,
2. To the Time of Payment.

3. The Rate of Intereſt is the Summ given for the uſe of 100 *l.* for one Year, and this is in ſome places more, in others leſs, which is generally proportioned to the Plenty or Scarcity of Money and Trade, or Dearneſs and Cheapneſs of things: Thus in *Italy* and *Holland* the Rate is 3 *l. per Cent.* in *Swedeland* 6, *France* 7; *Spain*, *Scotland* and *Barbadoes* 10; *Ireland* 12, and *Turky* 20 *per Cent.* from which different Rates the Ingenuous Sir *Joſiah Child* makes many curious Remarks in his Diſcourſe concerning Trade, to which I referr the Reader that is inquiſitive after the Policy of theſe matters, this Book being chiefly deſigned for practice; and as for the Rate in *England* it is by a Statute made 12 *Car.* 2. Chap. 13. 13 *Car.* 2. Chap. 14. not to exceed 6 *l. per Centum per Annum*, which becauſe ſome People are ignorant of I ſhall incert the Penalty in the Act mentioned, *viz.*

Whereas the Abatement of Intereſt from Ten in the Hundred in former times hath been found by notable Experience beneficial to the Advancement of Trade and Improvement of Lands by good Husbandry, &c. *And whereas in freſh Memory the like fall from* 8 *to* 6 *in the Hundred by a late conſtant practice, hath found the like Succeſs to the general Contentment of this Nation, as is viſible by ſeveral Improvements*, &c.

Be it for the Reaſons aforeſaid Enacted by the King's Moſt Excellent Majeſty, and the Lords and Commons in Parliament aſſembled; That no Perſon or Perſons whatſoever from and after the Twenty ninth of September, *in the Year of our Lord One thouſand ſix hundred and ſixty, upon any Contract ſhall from and after the ſaid Twenty ninth of* September *take directly or indirectly for Loan of any Monies, Wares, Merchandizes, or other Commodities whatſoever above the Value of Six Pounds for the forbearance of One hundred pounds for a Year, and ſo after that Rate for a greater or leſſer Summ, or for a longer or ſhorter Time. And that all Bonds, Contracts and Aſſurances whatſoever made after the Time aforeſaid for payment of any Principal or Money to be lent or covenanted to be performed upon; or for any Uſury whereupon or whereby there ſhall be reſerved or taken above the Rate of ſix pounds in the Hundred as aforeſaid, ſhall be utterly void. And that all and every Perſon or Perſons whatſoever, which ſhall after the time aforeſaid, upon any Contract to be made after the ſaid Twenty ninth day of* September, *take, accept and receive by way or means of any corrupt Bargain, Loan, Exchange, Cheviſance, Shift or Intereſt of any Wares, Merchandize, or other Thing or Things whatſoever; or by any deceitfull Way or Means, or by any Covin, Engine or deceitfull Conveyance for the forbearing or giving Day of Payment for one whole Year of and for their Money or other thing, above the Summ of ſix pounds for the forbearing of One hundred pounds for one Year, and ſo after that Rate for a greater or leſſer Summ, or for a longer or ſhorter term ſhall forfeit and loſe for every ſuch Offence the treble value of the Monies, Wares, Merchandize and other things ſo lent, bargained, ſold, exchanged or ſhifted,* &c.

4. The time at which the Intereſt of Money is payable, is uſually either Yearly, ½ Yearly or Quarterly; but when the Intereſt is payable Quarterly it is more advantageous to the Lender and loſs to the Borrower, becauſe the Lender tho' he receive but 6 Pound *per Cent. per Ann.* yet if he receive 30 *s.* every Quarter he has the uſe of that 30 *s.* the 2d Quarter; of 3 *l.* the 3d Quarter, and 4 *l* 10 *s.* the 4th Quarter, which the Borrower would have had the uſe of had the Intereſt been but payable yearly, which difference in the times payable making difference in the Amount or Improvement of the Principal will farther appear by and by.

5. Intereſt is either Simple or Compound.

6. Simple

6. Simple Intereſt is the Intereſt of the Principal Money firſt put out to intereſt; as if I put 100 *l.* for 2 Years to receive 6 *per Cent. per Ann.* Simple Intereſt, the Principal will be 100 *l.* and the Intereſt 12 *l.*

7. Compound Intereſt is ſo called becauſe the Intereſt payable ariſes from the Principalland Intereſt due thereupon jointly: as if I put out 100 *l.* for 2 Years to receive 6 *l. per Cent. per Ann.* according to the utmoſt improvement, the Intereſt as it becomes due being not received but forborn: In this caſe the 100 *l.* at the firſt Years end will be augmented to 106 *l.* which 106 *l.* is my Principal for the 2d Year, and at the determination thereof will be encreaſed to 112 *l.* 07 *s.* 02$\frac{1}{2}$ *d.* which is 100 *l.* Principal, 12 *l.* for the two years Simple Intereſt, and 7 *s.* 2$\frac{1}{2}$ *d.* the Intereſt of 6 pounds my firſt years Intereſt for the 2d year.

8. As there is more advantage to the Lender by receiving Compound Intereſt than Simple, ſo there is more advantage when Intereſt forborn is payable half yearly than yearly: Thus 100 *l.* at Simple Intereſt at 6 *l. per Cent. per Ann.* will be 200 *l.* in 16 years 8 months; at Compound Intereſt it will be 200 *l.* in 11 years 11 months at the rate aforeſaid, or if forborn 7 years it will be augmented to 150 *l.* 07 *s.* 03$\frac{1}{2}$ *d.* if the Intereſt was payable yearly, but if half yearly the 100 *l.* in 7 years will be encreaſed to 151 *l.* 05 *s.* 02 *d.*

Caſe. 1.] When you would find the Simple Intereſt of any Summ for 1, 2, 3, 4, *&c.* Years.

Rule.] Make 100 *l.* the firſt Number in the *Golden-Rule*, the Rate of Intereſt, or Intereſt of 100 *l.* the ſecond Number, and the Summ given the third Number, and work as before taught in the Rule of Direct Proportion; and having found the Intereſt for one Year, multiply it by the Number of Years, and you have the Anſwer.

Example.] What is the Simple Intereſt of 500 *l.* for three Years, at 6 *l. per Cent.*

100: 6:: 500
6

30.00 One years Intereſt
3 Years——— } Multiply

90 Pounds, Anſwer.

Example 2.] What is the Intereſt of 74 *l.* for ſeven Years ſimple Intereſt, being computed at 3 *l. per Cent. per Annum*?

l. *l.* *l.*
100 : 3 :: 74
2.22 *l.* 1 Years Intereſt for 74 *l.*
7 Years — Multiply
l. *s.* *d.*
15.54 *l.* Anſwer, or 15 : 10 : 9½

Caſe 2.] When the Intereſt of any Summ is required for any Time leſs than a Year.

Rule.] Find the Intereſt of the Summ given for a Year; then ſay, if 365 Days require the Intereſt found, what Intereſt will the Days, for which the Intereſt is to be computed require? multiply and divide, and the Quotient is the Anſwer.

Example.] What is the Intereſt of 750 *l.* from the Fifth of *June*, to the Firſt of *December* following, at 8 *l. per Cent. per Annum?*

By your *Almanack*, or otherwiſe, you will find between the ſaid Times, 178 Days. And that the Intereſt of 750 *l.* for 1 Year is 60 *l.* therefore ſay, if 365 Days require 60 *l.* what will 178 Days require? multiply and divide for the Anſwer: See the Work.

100 : 8 :: 750
8

l. 60.00 The Intereſt for 365 Days.

Days. *l.* *Days.*
365 : 60 :: 178
60

l. *s.* *d.*
365) 10680.000 (29.260 *l.* or 29 : 5 : 2½ Anſwer.

A TA-

A TABLE of Simple Intereſt at any uſual Rate, *Viz.* At 3, 5, 6 or 8 *l. per Cent. per Annum*, from 1 *l.* to 1000 *l.* for one Day, and may likewiſe ſerve for any greater Summ, Number of Days, or Rate of Intereſt.

£	3 *l.* per C. 1 Day.	5 *l.* per C. 1 Day.	6 *l* per C. 1 Day.	8 *l.* per C. 1 Day.
1	.0000821	.00013698	.00016438	.00021917
2	.0001642	.00027397	.00032876	.00043835
3	.0002463	.00041095	.00049315	.00065753
4	.0003284	.00054794	.00065753	.00087671
5	.0004105	.00068493	.00082191	.00109589
6	.0004926	.00082191	.00098629	.00131506
7	.0005747	.00095890	.00115068	.00153424
8	.0006568	.00109568	.00131506	.00175342
9	.0007389	.00123287	.00147944	.00197260
10	.0008219	.00136986	.00164383	.00219178
20	.0016438	.00273972	.00328766	.00438356
30	.0024657	.00410959	.00493149	.00657534
40	.0032876	.00547942	.00657532	.00876712
50	.0041095	.00685930	.00821915	.01095890
60	.0049314	.00821916	.00986298	.01315068
70	.0057533	.00958902	.01150681	.01334246
80	.0065752	.01095888	.01315064	.01753424
90	.0073971	.01232874	.01479447	.01972602
100	.0082191	.01369863	.01643835	.0219178
200	.0164382	.02739726	.03287670	.0438356
300	.0246573	.04109599	.04931505	.0657534
400	.0328764	.05479462	.06575340	.0876712
500	.0410955	.06849315	.08219175	.1095890
600	.0493146	.08219278	.09863010	.1315068
700	.0575337	.09589141	.11506845	.1534246
800	.0657528	.10959004	.13150680	.1753424
900	.0739719	.12328867	.14794515	.1972602
1000	.082191	.13698630	.16438356	.219178

Advertiſement.] They that do not underſtand Decimals may ſee my large Table of Simple and Compound Intereſt.

The

The Construction and Use of the foregoing Table.

The first Column toward the Left-hand, is the Summ of which you would know the Interest, the second is the Interest of any of those Summs for one Day, at 3 *l. per Cent. per Annum*; the third is the Interest of any of those Summs for one Day, at 5 *l. per Cent. per Annum*, the fourth the Interest for the same Time, at 6 *l. per Cent. per Annum*, and the fifth at 8 *l. per Cent. per Annum*, for one Day. The use of which is thus:

Suppose I would know (as in the Example of the second Case foregoing) the Interest of 750 *l.* for 178 Days, at 8 *l. per Cent.*

Look in the Table against 700 *l.* and you will find under 8 *l. per Cent.* .1534246, which is the Interest of 700 *l.* for one Day, at 8 *l. per Cent.* and against 50 *l.* under 8 *l. per Cent.* you'll find .0109589, which is the Interest of 50 *l.* for one Day, at 8 *l. per Cent.* the Summ of which is .1643835, which multiply by the Number of Days your Summ is forborn (which in this Example is 178 Days) and the Product is the Answer; which in the Example aforesaid is 29.260 *l.* or 29 *l.* 5 *s.* 2½ *d.*

Example 2.] Suppose I have bought Goods to the Value of 1000 *l.* for which I am to pay at the End of 6 Months by Contract; but a Week afterward I agree to pay the said Money presently, for which I am to have rebate at 8 *l. per Cent.* how much Money must I pay?

In six Months wanting one Week, are 175 Days; therefore multiply the Number in the Table, against 1000, under 8 *l. per Cent.* viz. .219178 by 175 Days, and the Product is 38.356 *l.* which I am to be abated of my 1000 *l.* and am therefore to pay but 961 *l.* 12 *s.* 10½ *d.*

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  .219178
      175
  -------
  1095890
 1534246
 219178
 -------
38.356150
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Case 3.

Caſe 3.] When you would find the Compound Intereſt of any Summ,

Rule.] Make 100 *l.* the firſt Number in the Rule of Proportion, 100 *l.* and its Intereſt for a Year the ſecond Number, and the Summ you would know the Intereſt of the third Number; then multiply and divide, and the Quotient is the Principal given, and Intereſt required for one Year; which make the third Number in the Rule of Proportion, continuing the firſt and ſecond Numbers as before, *&c.* So that for every Year your Money is forborn, you have one Operation in the Rule of Proportion.

Example.] What is the Amount of 550 *l.* 10 *s.* for three Years Compound Intereſt, computed at 6 *l. per Cent. per Annum*? See the Operation.

l.	*l.*	*l.*	
100 :	106 ::	550.5 :	
		106	
		33030	
		5505	
100 :	106 ::	583.530	The firſt Years Amount.
		106	
		350118	
		58353	
100 :	106 ::	618.5418	The ſecond Years Amount.
		106	
		37112508	
		6185418	
		655.654308	The Amount for three Years; or 655 *l.* 13 *s.* 1 *d.* which is the Anſwer.

Caſe 4.] When it is required to find the preſent worth of any Summ of Money due at the end of any Number of Years yet to come, Intereſt diſcounted at 6 *l. per Cent. per Annum.*

Rule.]

Rule.] Say as 106 *l.* (the Principal and Intereſt of 100 *l.* for one Year) is in proportion to the preſent worth thereof: So is any Summ due a Year hence to the preſent worth thereof. And ſo for any other Summ or Time.

Example.] What is the preſent worth of *655 l.* 13 *s.* 01 *d.* due at the end of 3 Years to come, Compound Intereſt diſcounted at *6 per Cent. per Annum.*

The Decimal of 13 *s.* 1 *d.* is .654308 *l.*

Therefore ſay, *l.* *l.*

106 *l.* : 100 :: 655.654308.

100

106) 65565430800 (618.5418 = the worth at the end of one Year, which is the 3d Number in the next working.

196

905

574

443

190

848

0

2*dly*, Say, 106 . 100 :: 618 5418

100 *l.*

106) 61854.1800 (583.53 = the worth at the end of two Years to come, which is the 3d Number in the next Operation.

885

374

561

318

0

3*dly*, Say, 106 . 100 :: 583.53

100 *l.*

106) 58353.00 (550.5 = the preſent worth, due at the end of 3 Years, or the Anſwer; which is 550 : 10 : 00

535

530

0

There

There is a much briefer way of finding the Compound Intereſt, which is done for any Number of Years, at one Operation by Artificial Numbers, called *Logarithms*; but ſince that kind of Arithmetick falls not within the Subject of this Book, which tends chiefly to accompliſh the Young Merchant; and ſince Compound Intereſt is ſeldom either taken or given by great Traders, I ſhall therefore omit the former, and ſay no more of the latter.

§. 6. *Concerning Equating Time of Payment.*

When ſeveral Summs of Money are due at ſeveral Times, and the Debtor and Creditor agree to make but one Payment of the Whole, it may be done without Loſs to either by this

Rule.] Multiply every Summ of Money by the Time it becometh due, and divide the Summ of the Products by the total Debt, and the Quotient is the true Time, at which the Money ought all to be paid.

Example.] Admit I have 1200 *l.* owing me, to be paid at 4 ſeveral Payments, *Viz.* 500 *l.* at two Months end, 300 *l.* at ſix Months, 200 *l.* at ten Months, and 200 *l.* at twelve Months; the Queſtion is, at what Time the whole may be paid at one Payment, without wrong on either ſide?

	l.		*Mo.*	*Products.*			
Diviſor 1200	500	x	2	= 1000	Dividend 7200	+	(6 = Quotient, *Month.* or Anſwer.
	300	x	6	= 1800			
	200	x	10	= 2000			
	200	x	12	= 2400			

By the Work you ſee the whole Debt ought to be paid at the end of ſix Months, which is the true Equated Time.

Note, that (*x*) ſignifieth [multiplied by] and (.=) [equal to]

§. 7. *Concerning Gain and Loſs in the Practice of Merchandize.*

Caſe 1.] When Goods are bought at any Rate, and you deſire to know how to retail the ſame, ſo as to gain a certain Summ by the Sale.

Rule.] As the whole Quantity of the Goods bought
Is in proportion to the Total of the Summ given for the Goods, and the Summ propoſed to be gained;
So is any part of the Commodity,
To a fourth Number, for which if you ſell the ſaid Part, you will gain the Summ deſired by ſale of the Whole.

Example.] Admit a Druggiſt buyeth 158 Ounces of black Amber-greece for 230 *l.* I demand how he may ſell the ſame (by the Ounce *Troy*) to gain 50 *l.* by the bargain. Say,

℥.	*l.*	℥.	*l.*		*l.*	*s.*	*d.*
158 :)	280 : :	1 : (	1.772	Anſwer, or	1 :	15 :	$5\frac{1}{4}$ *per* Ounce.

280.000
....
1220
1140
340
24

Caſe 2.] When you would gain a certain Summ *per Cent.* by the Sale of any Commodity, to know how to ſell the ſame.

Rule.] Conſider what the whole Value of your Goods will gain, at your propoſed Rate *per Cent. per Annum*; then work as in the laſt Caſe.

Example.] A Furrier buyeth 2100 ℔ of *New-England* Bever for 700 *l.* 14 *s.* how may he ſell the ſame *per* Pound, to gain at the Rate of 20 *l. per Cent. per Annum?*

The

The Operation is thus performed.

l. *l.* *l.*
100 : 20 :: 700.7
20

140.140 The propoſed Gain by 700 : 14
700.7 Add

lb Bever. *lb Bever.*
840.84 lb : : 1 *s.* *d.* *q.*
2100 :) 840.8400 (.4004 lb, or 8 : 0 : $0\frac{2}{5}$ *per* lb
but 8 *s.* will anſwer your deſire,
wranting only 16 *s.* $9\frac{1}{2}$ *d.* at
the whole.
84
0

Caſe 3.] When Goods are bought at a certain Price, and afterwards ſuſtain Damage, and muſt therefore be ſold at an under Rate, to know how to ſell the ſame to loſe a certain Summ.

Rule.] Firſt, find the Value of the Goods at the Rate you gave for them, from which deduct what you are willing to loſe, and work the Remainer in Proportion, as in the two laſt Caſes.

Example.] An Oylman buyeth of a Merchant 2100 lb of *Weſtphalia* Ham, for which he gives 9 *d.* *per* Pound; but having ſuſtained Damage, he is willing to loſe 8 *l.* 15 *s.* by the Sale, at what price muſt he ſell the ſame to loſe juſt that Summ?

The Value of the Hams by Practice is 78 *l.* 15 *s.*

$\frac{1}{40}$ of 2100 at 9 *d.*

is = 52 *l.* 10 *s.*
$\frac{1}{80}$ is = 26 *l.* 5
Facit. 78 *l.* 15 *s.*

l. *s.*
78 : 15
The loſs 8 *l.* 15 deduct

2100 : 70 :: 1

2100) 70.000 (.033 *l.* Anſ.
70
7

By the Work I find he muſt ſell for 8 *d.* *per* lb

The laſt Queſtion is more briefly reſolved thus:

If 2100 *l.* loſe 8.75 *l.* what will 1 ℔ loſe?

2100) 8.750 (.004 *l.* or 1 *d. per* Pound loſs.

3

So muſt he ſell it for 8 *d. per* ℔ as was taught before.

Caſe 4.] When Goods are bought at one Price, and ſold for a greater to be paid at Time; to know what you gain by 100 *l.* in a Year at that Rate.

Rule.] Say by the Double Rule of Direct Proportion foregoing.

As the Price your Goods (or any part) coſt you, is to the gain by ſuch Goods, or part in the Time you truſt the Buyer:

So is 100 *l.* in 12 Months to the Summ gained thereby for Anſwer.

Example.] A Merchant bought 17 *C.* 2 *Qrs.* of Logwood at 20 *s.* 6 *d. per* Hundred ready Money, and ſold the ſame to a Dyer for 25 *s. per* Hundred, to be paid at the End of 6 Months; the Queſtion is what he gained at that Rate by 100 *l.* in a Year. See the Work as by the Rule above.

s.

1 Hundred coſt the Merchant 20.5

He ſold the ſame for 25

His gain by 1 Hundred = 4.5 Then ſay,

s.	*Mo.*	*s.*	*l.*	*Mo.*
If 20.5	: 6	: 4.5	: 100	: 12
6			4.5	
123.0			450.0	
			12	
			123) 5460.000	(44.390 Anſwer,
				l. *s.* *d.*
				or 44 : 7 : 9½ *per Cent. per Ann.*
			540	
			480	
			1110	
			30	

S. 8. *Con-*

§. 8. *Concerning Fellowſhip, or Trading in Company.*

Caſe 1.] When two or more Merchants make a common Stock, and by Trade gain or loſe a certain Summ; to know what each gaineth or loſeth in proportion to his ſhare of the common Stock.

Rule.] Divide the whole Loſs or Gain by the whole Stock, and multiply the Quotient in each Man's ſhare of the Stock, and the ſeveral Products are the reſpective Gain or Loſs of each particular Merchant.

Example.] Three Merchants make a common Stock of 16000 *l.* of which

7000 *l.* was put in by the firſt Merchant,
5000 *l.* by the ſecond; and
4000 *l.* by the third,

and by one Voyage they gain 24000 *l.* what muſt each have in proportion to his ſhare?

```
                 7000
                 5000
                 4000
                 ----   gain.
The whole Stock=16000) 24000 (1.5=the Multiplier
                  |     |
                        ----
                         80
                         --
                          0
```

l.			
7000	Multiplyed by	10500.0	=the Profit of the 1ſt.
5000	1.5 produceth	7500	=of the 2d.
4000		6000	=of the 3d.

Caſe 2.] When ſeveral Merchants make a common Stock for a certain Time, and at the End thereof make a Dividend, to find each Man's ſhare of the Gain or Loſs according to his Stock and Time.

Rule.

Rule.] Multiply each Man's ſhare in the common Stock, by the Time it continued therein, and proceed with the Products, as with the ſhares in the laſt Caſe.

Example.] Two Merchants make a Common Stock for 12 Months; the firſt put in 2400 *l.* for 8 Months, the ſecond put in 3000 *l.* for 12 Months, at the End whereof they make a Dividend of 1680 Pounds gain; how much of that Gain ſhall each have in proportion to his Stock and Time of continuance?

l.	*Mo.*	*Products.*
2500 x	8	20000+.
3000 x	12	36000+.

Gain divide

Summ = 56000) 168 .000 (.030

00 remains.

.03 Multiply'd by { 20000 *l.* / 36000 *l.* } produceth { 600.00 The 1*ſt* gain'd. / 1080.00 The 2*d* gain'd. } *l.*

The total Gain = 1680 for proof.

I might have incerted more of theſe and ſuch like Examples, but one being ſufficient to explain a General Rule, I ſhall proceed to the next Chapter.

CHAP.

CHAP. X.

Treateth of Book-keeping by Debtor and Creditor.

HAving in the foregoing Chapters given the young Merchant the Grounds and Reaſons of Arithmetick, and Rules for caſting up any thing that may occur in his daily buſineſs; I come in this Chapter to ſhew him how to place the ſame to Accompt; and that I may do it with all the plainneſs I can, and in as few words, I ſhall proceed to ſhew,

§. 1. *The Explanation of this kind of Book-keeping, and the Books requiſite to be kept, and their Uſe.*

The Method of keeping Books by way of Debtor and Creditor, or (as ſome call it) after the *Italian* manner,, Is ſo regular and preciſe, that at any Time the Merchant can be reſolved what he gaineth or loſeth by every particular Perſon he dealeth with, or Merchandize he dealeth in, and conſequently what he is worth to a Farthing. And for your information how theſe Books are kept, take this

General Rule.

Any thing whatſoever is received either by the Merchant, or any way for his Accompt by his Servants, whether the ſame be Money or Wares: I ſay the thing ſo received for, or upon his Accompt, is in the Ledger (which ſhall be ſpoken to by and by) made Debtor to the Perſon receiv'd from, or thing for which it is receiv'd.

Alſo every thing whatſoever is deliver'd from the Merchant upon any Accompt, whether Money or Wares, the thing ſo delivered by the Merchant, or any way for his Uſe or Accompt, is in the Ledger made Creditor By the Perſon to whom, or thing for which the ſame is delivered. My meaning in this Rule ſhall be fully made appear in all the uſual Caſes of a Merchant's Dealing, after I have ſhewed the Books neceſſary for keeping Accompts after this Method, which are as followeth.

1. The **Waſte-Book** is that wherein every thing is entered, whether bought, ſold or bartered, as alſo all Goods ſhip'd, or Advice

receiv'd

receiv'd of their Sale, Money lent or receiv'd at Intereſt, *&c.* (but not Money receiv'd or paid for Goods that were ſold or bought at Time, nor for petty Expences, *&c.* which I enter only in the Caſh-book and poſt it thence into the Ledger, which is ſufficient) together with the Time when, by the Day of the Month incerted in the middle of the Page, with the Year of our Lord: and is of no farther uſe but only to remind the Book-keeper, that ſuch and ſuch buſineſs is to be poſted into the Journal, the Caſh being never ſumm'd up in this Book, it being ſeveral Men's Accompts of Receipts and Payments placed together promiſcuouſly.

2. The **Journal** is a Book into which every thing is poſted out of the Waſte-book, which is here to be made Debtor, and ought to be expreſſed in a better Stile or Phraſe of Speaking and fairly written more Merchant-like, it being as it were a Preparatory to the Ledger, whereby is ſhewed what Accompts are to be entred Debtor therein, and to which Book Recourſe can only properly be had for the particular of any Accompt either ill wrote or worded in the Waſte-book, or entered but briefly in the Ledger, as all Accompts uſually are. In this Book the Day of the Month is alſo placed in the middle of the Page, which is never ſumm'd up; unleſs it contain only one man's Accompts, for the reaſon aforeſaid.

3. The **Ledger** is the chief Book of Accompts, and that in which all Accompts meet, and are placed Debtor on the Left-hand Page, and Creditor on the Right; ſo that the Folio's on the Right and Left-hand in this Book are numbered alike; becauſe one and the ſame Accompt is placed on both ſides. In this Book the Day of the Month is placed in a narrow Column toward the Left-hand of the Page, and the Name of the Month to the Left-hand the Day. At the Head of each Folio in this Book, is written the Name of the City or place where the Books are kept, with the Year; all which you will ſee in the Example of theſe three Books after the ſeveral Caſes. The Denomination of moſt of your Accompts to be entered in this Book, are thus ranked and explained.

Firſt, place your Accompt of Stock at the beginning of your Ledger, *viz.* Make Stock Debtor to what you owe, when you begin to keep your Books, let the Debt be upon what Accompt ſoever, in theſe words, on the Left-hand Folio as it lyeth before you:

Stock

Stock Debtor,

To ſundry Accompts as *per* Inventory, ſo much as the ſame is; and firſt of all, having taken an Inventory of all you are worth in Caſh, Wares, or Debts (as you ſee in the Inventory following) write on the Right-hand Folio the Summ of what you are worth, as appeareth by the particulars in the Inventory, making Stock Creditor in theſe words.

Per contrà Creditor,

By ſundry Accompts, as *per* Inventory, mentioning the Value of all the Caſh, Wares and Debts you have.

The next thing (on the ſame Folio) is the Accompt of Caſh; where note, that before you enter any thing Debtor or Creditor in your Ledger you are to look whether you have any thing of the ſame Denomination in your Inventory, which if you have, you muſt the firſt thing in the Accompt, make it Debtor to Stock for ſo much as is in the Inventory of that Accompt, as ſuppoſe you have in ready Caſh at the time of taking your Inventory 2000 *l.* you muſt make, firſt

Caſh, Debtor,

To Stock ——————————— *l.* 2000 : 00 : 00

And afterward make the ſame Accompt Debtor to ſundry Accompts, as *per* Caſh-Book. And the ſaid Perſons of whom you receive, or Wares for which you receive Money, muſt be made in their own Accompt Creditor by Caſh, according to the general Rule foregoing, as ſhall be ſhewn in the Caſes following.

Next to the Accompt of Caſh in your Ledger, you may put what Accompt occurrs in practice; as the Accompt of Men, Wares, Voyages, *&c.* as,

When you ſhip off Goods to your Factor to be ſold for your Accompt, you are in this Book to keep an Accompt of the Voyage in a place by it ſelf, as you do the reſt, making *Voyage to ſuch a place (mentioning the Port or Place your Factor reſideth at) conſigned to ſuch a Perſon (mentioning your Factor's Name) Debtor* to the Goods ſhipped. To Cuſtom, Inſurance, and all other Charges of the ſame, and the contrary Accompts Creditor by Voyage.

When you have advice that the Goods ſhipp'd are ſold, then in ſome one place make *Factor at ſuch a place, my Accompt currant Debtor* to Voyage; And the Voyage Creditor by the Accompt currant, *&c.*

In this Book is alſo kept the Accompt of Profit and Loſs, by it ſelf thus:

Profit and Loſs Debtor.

To Caſh for what Money you pay and have nothing for it; as to Rebate of Money paid you before due; To Abatement by Compoſition, when a Perſon is inſolvent; To Houſhold Expences, Servants Wages, *&c.* And,

Per contra Creditor.

By Caſh for all you receive, and deliver nothing for the ſame; as by Money received with an Apprentice; by Rebate for paying a Summ before due; for Legacy left you by a Friend, and by the Summ you gain; by every particular Commodity you deal in; by Ships in Company; by Voyages, *&c.*

4. The **Caſh-Book** is that wherein you enter all the Mony you receive upon any Accompt, on the Left-hand Folio, making Caſh Debtor to the thing you receive it for, if it is received for Goods then ſold, but if not, to the Perſon you receive it from, as in the Example of a Caſh-Book, *&c.* and on the Right-hand Folio enter all the Caſh you pay, Creditor By the Perſon you pay it to (mentioning whether it is in full or in part) or thing you pay it for, if paid for Goods then bought, and place the Day when you receive or pay it, as in the Ledger, and once in a Month, or oftner, ſumm up your Accompt of Caſh received and paid, carrying the Summ to the Accompt of Caſh in the Ledger, which Accompt, without this Book would ſwell too big, provided you ſhould enter the particulars there.

5. It is neceſſary you ſhould keep a Book to enter all the Caſh in, which you expend in Houſe-keeping, and once in a Month transfer the ſame into the Creditor ſide of the Caſh-Book, and then into the Debtor-ſide of the Ledger, thus:

Houſhold

Houſhold Expences, Debtor,

To Caſh, ſo much as you bring from your Book of Houſhold-Expences; and Caſh is made Creditor, by Houſhold-Expences, in your Caſh-Book. For the Monthly Summ ſpent in Houſe-keeping, and brought from the Book of Houſhold Expences. In this Book is likewiſe proper to enter the Charge of Apparel, Rent of your Dwelling-Houſe, Pocket-Expences, Servants Wages, *&c.* as in the following Book of Houſhold Expences.

6. **A Book of Charges of Merchandize,** Wherein you muſt enter the charge of Cuſtom, Freight, Ware-Houſe Room, Poſtage of Letters, Porterage, Cartage, Wharfage, Books of Accompts, *&c.* and once in a Month make a Summ, and transfer it into Creditor-ſide of your Caſh-Book, making a Referr to the Folio of the Book of Charges of Merchandize; and alſo into the Debtor-ſide of the Account of Charges of Merchandize in your Ledger.

7. **A Book of Factories or Invoyces,** Which is an account of Goods ſhipt or ſent by you to your Factor, or received from him, *&c.* In this Book, enter the Goods ſent or ſhipt to be ſold for your Account, with the Value and Time when ſent on the Left-hand Folio; and as you receive Advice of their Sale, enter the ſame on the Right-hand Folio; ſo may you readily ſee how the Accompt ſtands in that particular.

8. Beſides theſe Books, the Merchant ought to have a Book wherein to enter a Copy of all Letters he ſendeth or receiveth upon Accompt of Trade: Alſo,

9. A Pocket-Book to take the Minits of what buſineſs you do abroad, for the eaſe of your Memory, and to avoid Error.

10. A Bill-Book, or ſmall Book wherein to enter all Bills of Exchange the Merchant accepteth, with the Summ and Time when payable, and to whom; or if foreign Bills, a Copy of the Bill; and and as you pay the ſame, write [*Paid*] in the Margent againſt the Bill paid.

11. Laſtly, A Book of Receipts, wherein to take all Receipts for Money you pay: Expreſſing firſt the Day of the Month, then the Summ received, and for what, or whether in full or in part, and for whoſe uſe, which muſt be Signed by the Perſon receiving.

Thus have I given you an Account of all the Books neceſſary for a Merchant to keep, eſpecially if he is a great Dealer; alſo the Nature of the Account to be inſerted in each Book, and the Uſe thereof. I ſhall next proceed to give ſuch particular Directions as will enable the Book-keeper to find proper Debtors and Creditors, for moſt, if not all the Caſes he will meet with in the Practice of Merchandize.

§. 2. *Sheweth how to enter in your Ledger proper Accounts in Domeſtick Trade.*

Definition. PRoper Accounts in Domeſtick buſineſs is, when the ſame is wholly managed by the Merchant or his Domeſtick Servants; as in the Caſes following.

Caſe 1. When Mony is received for a Debt.

Rule. [Caſh Debtor] To him for whoſe Account it was paid.
The paying-Man's Account, Creditor, by Caſh.

Caſe 2. When preſent Money is received for Wares.

Rule. [Caſh Debtor] To the Wares ſold, the Summ received.
Goods ſold Creditor By Caſh for the ſame ſumm.

Caſe. 3. When Money is paid for Wares, preſently, as ſoon as bought.

Rule. [Wares bought, Debtor] To Caſh for what paid:
Caſh Creditor, By Wares bought, in the ſame Summ.

Caſe 4. When I pay Money that was due formerly.

Rule. [The Receiver's Account] Debtor, To Caſh for what paid.
Caſh Account, Creditor, By thy Perſon receiving.

Caſe 5. When Money is taken at Intereſt.

Rule. [Caſh Debtor] To the Lending-man for the Principal I receive.
[Profit and Loſs] Debtor to the Lending-man for the Intereſt coming due to him.
The Lending-man Creditor By ſundry Accounts, referring to the Folio's of Caſh, and Profit, and Loſs.

Caſe 6. When Mony is lent at Intereſt.

Rule. [The Borrowing-man] Debtor to ſundry Accounts, (referring to the Folio's of Caſh, and Profit, and Loſs.
Caſh-Creditor by the Borrowing-man for the Principal lent.
Profit and Loſs Creditor By the Borrowing-man for the Intereſt.

Caſe 7.

Caſe 7. When Intereſt-money is paid by me, and the Principal continued.

Rule. [Profit and Loſs] Debtor to Caſh for the Summ paid.
Caſh Creditor by Profit and Loſs for the ſame Summ.

Caſe 8. When Money is received by me for Intereſt, and the Principal continued.

Rule. [Caſh Debtor] To Profit and Loſs for the Intereſt received.
Profit and Loſs, Creditor, by the paying-Man for the ſame.

Caſe 9. When I receive Money by Aſſignation.

Rule. [Caſh Debtor] To the Aſſignor for the Summ received.
The Aſſignor Creditor By Caſh for the ſame Summ.

Caſe 10. When I ſatisfie a Debt by Aſſignment of another due to me.

Rule. [The Receiver Debtor] To him on whom the Aſſignment is charged.
He on whom the Aſſignment is charged Creditor By the Accepter.

Caſe 11. When I pay Money to any, by my Creditor's Aſſignation.

Rule. [The Aſſignor] Debtor To Caſh for the Summ paid (mentioning to whom.)
Caſh Creditor By the Aſſignor for the ſame Summ, mentioning to whom paid, and by whoſe Aſſignation.

Caſe 12. When I receive part of a Debt, and (by Compoſition) give a Diſcharge in full.

Rule. [Caſh Debtor] To the Payer for the Summ received.
Profit and Loſs, Debtor, To him for the Summ I abate by Compoſition.
The paying-Man Creditor By ſundry Accounts, referring to the Folio's of Caſh, and Profit, and Loſs.

Caſe 13. When Wares are bought upon Time.

Rule. The [Wares bought Debtor] To the Seller for the value of them.
The Seller Creditor By the Wares bought, for the like Summ.

Caſe 14. When Wares are ſold upon time.

Rule. The [Buyer Debtor] To the Wares ſold for their value.
The Wares Creditor By the buying-man for the ſame Summ.

Caſe 15. When Wares bought are to be paid for at ſeveral Payments.

Rule. The [Wares Debtor] To the Seller for their value, [mentioning the ſeveral days of Payment in the Journal.)
The Seller Creditor By the Wares for the like Summ.

Caſe 16.

Caſe 16. When Wares are bought part for Ready-money, and part at time.

Rule. The [Wares bought Debtor] To ſundry Accounts, (referring to the Account of Caſh, and the Seller's Account by their Folio's.)

The Selling-man Creditor, By Wares bought ſo much as is left unpaid; and Caſh Creditor By Wares for ſo much paid Ready-money.

Caſe 17. When ſundry Parcels of Wares are bought for Ready-money.

Rule. The ſeveral and [reſpective Wares] muſt be made Debtor To Caſh for the value it ſtands me in; and

Caſh Creditor by ſundry Accounts for the total value, referring to the ſeveral Folio's where the ſeveral Wares ſtand booked.

Caſe 18. When ſeveral Parcels of VVares are ſold for Ready-money.

Rule. [Caſh Debtor] To ſudry Accounts (referring to the Folio's where the ſeveral VVares ſold are entred in the Ledger) for their whole value.

The reſpective VVares Creditor by Caſh.

Caſe 19. VVhen VVares are ſold part for Ready-money, and part at time.

Rule. The [Buyer Debtor] To VVares ſold, for the Summ unpaid.

[Caſh Debtor] To the VVares ſold for the Summ received in part.

VVares Creditor By ſundry Accounts (referring to the Accounts of the Buyer and Caſh) for the whole Summ for which the VVares are ſold.

Caſe 20. VVhen VVares are bought at time, and booked, and afterward, Ready-mony is paid upon Rebate.

Rule. The [Seller Debtor] To Caſh for the Summ paid him (deducting the Rebate.)

Caſh Creditor by the Seller for the ſame Summ.

The [Seller Debtor] To Profit and Loſs for the Rebate.

Profit and Loſs Creditor By the Seller for the ſame Summ.

Caſe 21. VVhen VVares are ſold at time, and booked, but Money received preſently after, for the ſame, allowing Rebate.

Rule. [Caſh Debtor] To the Buyer for the Summ received upon Rebate.

The

The Buyer Creditor By Caſh for the ſame Summ.
[Profit and Loſs] Debtor to the Buyer for the Summ rebated.
The Buyer Creditor by Profit and Loſs for the ſame Summ.

Caſe 22. When Wares are bought, and part paid Ready-money, part at time, and the reſt by Aſſignation.

Rule. [Wares Debtor] To ſundry Accounts, the whole Value referring to the Folio's of the Seller's Account, Caſh, and his whoſe Bill is Aſſigned.
The Seller Cr. by the Wares for ſo much as is yet unpaid.
Caſh Cr. by the VVares for ſo much as is paid in Caſh.
[Him whoſe Bill you have aſſigned] Cr. By the VVares, ſo much as the Summ aſſigned is.

Caſe 23. VVhen VVares are ſold for part Ready-money, part by Aſſignation, and the reſt at Time.

Rule. [Caſh Dr.] To VVares the Summ received in part of the Buyer.
[The Perſon on whom the Aſſignment is made] Dr. To VVares, ſo much as is aſſigned.
[The Buyer Dr.] To VVares for the Summ he left unpaid.
VVares Cr. By ſundry Accounts referring to the Folio's of Caſh, the Perſon to pay the Money aſſigned, and the Buyer.

Caſe 24. VVhen in Lieu of a Debt you receive Goods, whoſe Value is more than your Debt, which Surplus is returned in Caſh immediately.

Rule. Make [VVares bought] Dr. To ſundry Accounts, referring to the Folio of the Payer's Account, and that of Caſh, in your Ledger.
The Payer's Account Cr. By VVares, the Summ paid him by agreement.
Caſh Cr. By VVares for the Surplus paid back.

Caſe 25. VVhen In Payment of a Debt you ſell Goods to your Cr. whoſe value exceeding his Debt, he returneth you the Overplus

Rule. The [Buyer Dr.] To VVares for ſo much as his Debt was.
[Caſh Dr.] To VVares for the Overplus returned.
VVares Cr. By ſundry Accounts referring to the Folio's of Caſh and the Buyer's Account.

Caſe 26. VVhen VVares are bought in barter for other VVares.

Rule. The [VVares bought Dr.] To the VVares ſold for the value of the VVares ſold.

VVares

VVares ſold Cr. By VVares bought for the value of thoſe bought.

Caſe 27. VVhen VVares are bought part for VVares and part for ready Money.

Rule. [VVares bought] Dr. To ſundry accounts, referring to the Folio's of VVares ſold, and Caſh.

VVares ſold Cr. By the VVares bought for the value of thoſe ſold.

Caſh Cr. By VVares bought for the Summ paid in Money.

Caſe 28. VVhen VVares are ſold for part VVares, and part ready Money.

Rule. Make [VVares bought] Dr. To VVares ſold for what they Coſt.

Caſh Dr. To VVares ſold for the Summ received.

VVares ſold Cr. By ſundry accounts referring to the Folio's of the VVares bought, and Caſh.

Caſe 29. VVhen you pay Money for part of a Ship.

Rule. [Ship] (naming her) Dr. To Caſh for the Summ paid, naming the Maſter, and what part you have bought.

Caſh Cr. By the Ship, the Summ paid, mentioning to whom.

§. 3. *Accounts proper in Foreign Trade.*

Definit. PRoper Accounts in Foreign Trade, is, when the Merchant ſendeth Goods beyond the Sea, to ſome Correſpondent to be ſold for his Account.

Caſe 1. VVhen you ſhip off VVares.

Rule. Make [Voyage to ſuch a place (mentioning the place whither you ſend them) conſigned to your Factor, or Correſpondent (mentioning his Name) Dr.] To the VVares ſhipped for their value, naming the Ship and Maſter's Name,

VVares Cr. By Voyage To, *&c.*

Caſe 2. VVhen you would enter Charges of Goods ſhipp'd off.

Rule. Make [Voyage to the place whither your Ship is bound, Dr.] To Charges pf Merchandize for the Summ paid on ——— (naming the Commodity.)

Charges of Merchandize Cr. By the Voyage for the ſame Summ.

Caſe 3. VVhen Money is received upon Inſurance.

Rule.

Rule. Make [Caſh Dr.] To Inſurance--Reckoning, Expreſſing what Summ you Inſure, to whom, and on what Accompt.
Inſurance Accompt Cr. By Caſh, *&c.*

Caſe 4. If the Goods you inſure are loſt.

Rule. Make [Inſurance—Reckoning] Dr. To the Perſon to whom you inſured the Summ loſt.
The Perſon to whom you inſured Cr. By Inſurance—Reckoning.

Caſe 5. When you pay Money for Inſurance.

Rule. Make [Inſurance—Reckoning Dr.] To Caſh for the Summ paid (mentioning the Summ inſured to you, by whom, and on what Accompt) and
Caſh Cr. By Inſurance Accompt, *&c.*

Caſe 6. If the Goods that are inſured to you are loſt.

Rule. Make [the Perſon that inſured Dr.] To Inſurance—Reckoning the Summ inſured, and
Inſurance—Reckoning Cr. By the Perſon that inſured to you.

Caſe 7. When you even the Accompt of Inſurance.

Rule. If the Summ on the Cr. ſide exceed that of the Dr. Make [Inſurance—Reckoning Dr.] To Profit and Loſs for that Exceſs. But if the Dr. ſide exceed the Cr. Make [Profit and Loſs Dr.] To Inſurance—Reckoning for that Exceſs, and in both Caſes *per contra Creditor*———

Caſe 8. When you receive Advice from your Factor, that Goods formerly conſigned to him are ſold———

Rule. Make (in ſome place in your Ledger) [Factor at — (mentioning the place he liveth at) my Accompt currant Dr.] To Voyage to ſuch place, for the known Sale in Sterling-Money, being the Nett proceed of Wares, as by his Accompt on the File ſold for ſo much foreign Coin (mentioning the Exchange) then make Voyage to ſuch place, conſigned to ſuch Perſon (mentioning your Factor's Name) Cr. By my Factor at ſuch place my Accompt currant ſo much Sterling Money as you know by his Accompt, the foreign Coin of the Nett proceed amounts to.

Note, That the Nett proceed is when the Charges of Cuſtom, bringing the Goods from on Board into the Ware-houſe, Proviſion. *&c.* is deducted from the value the Goods are ſold for by a Factor.

Caſe 9. When Wares are bought upon Time, and ſhipp'd off before Entry in your Books

Rule. Make [Voyage to ſuch a place conſigned to ſuch a Perſon, Dr.] To the Selling-man, naming the Quantity, Price, and other Conditions of buying and ſhipping off.
The Sellers Cr. By Voyage, *&c.*

Caſe 10. When Abatement is made by my Factor for defect in Goods he formerly ſold.

Rule. Make [Profit and Loſs Dr.] To Factor at—my Accompt currant (mentioning for what, and the Summ.)
Then make Factor at ſuch a place my Accompt currant Cr. By ſuch Summ, *&c.*

Caſe 11. When Wares are bought for Ready-money, and immediately ſhipp'd off before Entry.

Rule. Make [Voyage To-- Dr] To Caſh for the value of the Goods ſhipp'd, mentioning the Names of the Wares, Quantity and Charges, till on Board, *&c.*
Then Caſh Cr. By Voyage, *&c.*

Caſe 12. When you receive the unhappy News of your Goods being caſt away.

Rule. Make [Profit and Loſs Dr.] To Voyage to ſuch a place, conſigned to ſuch a Perſon, *&c.*
Then make Voyage Cr. By Profit and Loſs for the ſame Summ, *&c.*

Caſe 13. When I order my Factor beyond the Sea, to ſhipp off Goods to another Factor in another place.

Rule. [Voyage to ſuch a place conſigned to my receiving Factor] Dr. To my ſending Factor (mentioning their Names) my Accompt currant ſo much for ſuch a thing.
Then make my ſending Factor (mentioning his Name) at ſuch a place my Accompt currant Cr. By Voyage to ſuch a place conſigned to my receiving Factor (naming his Name and Place) for the ſame Summ.

Caſe 14. When I receive the Content of a Bill here, and thereupon draw the ſame on my Factor, to pay to the order of him that paid me.

Rule. Make [Caſh Dr.] to my Factor at ſuch a place my Accompt currant for ſo much Sterling received of ſuch a Perſon for my Bill drawn on Ditto Factor, payable by him to ſuch a Perſon, at ſuch a Time, ſo much Foreign Coin, which at ſo much Exchange makes Sterling ſo much.
Then make Factor at ſuch a place, my Accompt currant Cr. By Caſh, *&c.*

Caſe

Caſe 15. When I receive Wares in Return from my Factor or Correſpondent.

Rule. Make [Wares received Dr.] To Factor at ſuch a place, (who ſent the Wares) my Accompt currant ſo much as the Wares coſt, mentioning what they are, *&c.*

Then Factor at ſuch a place, my Accompt currant, Cr. By Wares received for their value, *&c.*

Caſe 16. When I deliver a Bill here drawn upon my Factor beyond Sea, and receive not the Content till ſome time after.

Rule. The [Perſon to whom I deliver my Bill] Dr. To Factor at ſuch a place, my Accompt currant in ſo much Sterling for my Bill of ſo much foreign Coin drawn upon ſuch Factor, payable at ſuch a time, to ſuch a Perſon, or Order, the Exchange at ſo much Sterling, for ſo much foreign Coin makes Sterling ——

Factor at ſuch a place my Accompt currant Cr. By the Perſon to whom I deliver my Bill.

Caſe 17. When I receive Money preſently, which is the Content of a Bill drawn on ſome Perſon here by my Factor.

Rule. [Caſh Dr] To Factor at —— (my Accompt currant) for ſo much received of ſuch a Perſon by Bill of Exchange payable at ſight, for the value paid there (*i. e.* beyond Sea by my Factor) to ſuch a Perſon.

Then Factor at —— my Accompt currant Cr. By Caſh, *&c.*

Caſe 18. When I receive Advice that my Factor at one place has drawn a Bill on my Factor at another place.

Rule. Make [the drawing Factor my Accompt currant] Dr. To the paying Factor, my Accompt currant for ſo much foreign Coin drawn by —— payable at ſuch a time to ſuch a Perſon, ſo much foreign Coin, which at ſuch Exchange makes Sterling ——

Then make the accepting Factor my Accompt currant Cr. By the drawing Factor, my Accompt currant mentioning both their Names, Sumn, *&c.*

§. 4. *Factorage Accompts in Domeſtick Trade.*

Definit. THeſe Accompts are when a Trade is managed by the Factor, or his Servants for the Employer, whom the Factor ſerveth in Commiſſion.

Caſe 1. When a Factor receives Wares from his Employer.

Rule. In ſome one place of your Ledger, make [the Accompt of Goods for your Employer,] Dr. to Caſh for ſo much paid Cuſtom, Freight, *&c.*

Then make Caſh Cr. By Accompt of Goods, *&c.* ſo much as paid.

Caſe 2. When Wares received in Commiſſion by a Factor, are ſold for Ready-money.

Rule. [Caſh Dr.] To Accompt of Goods for the Employer, the Summ received.

Then make Accompt of Goods for the Employer Cr. By Caſh the ſame Summ.

Caſe 3. When Commiſſion Wares are ſold by the Factor in Barter.

Rule. [Goods bought in Barter] Dr. To Accompt of Goods, for Accompt proper of the Employer for their Value.

[Accompt of Goods for Accompt, *&c.*] Cr. By Wares received the ſame Summ.

Caſe 4. When Wares in Commiſſion are ſold part for Ready-money and part at time.

Rule. The [Buyer Dr.] To Accompt of Goods for Accompt proper of the Employer, the Summ left unpaid, Caſh Dr. To Accompt of Goods, *&c.* for the Summ received.

[Accompt of Goods for Accompt proper of the Employer] Cr. By ſundry Accompts for the total Value of the Goods ſold, referring to the Folio's of the Accompts of the Buyer, and Caſh.

Caſe 5. When Wares are ſent to an Employer in return with Charges in ſhipping off.

Rule. Make [Accomps of Wares for Accompt proper of the Owner] (or your Employer naming his Name] his Accompt currant] Dr. To the Goods ſhipp'd, naming the Value and Goods, with the Ships and Maſters Names, *&c.*

Alſo the ſame Accompt Dr. To Caſh paid for Cuſtom, and other Charges.

Then make Wares ſhipp'd Cr. By the Employer, his Accompt currant for the Value.

And Caſh Cr. By the ſame Accompt currant, for the Charges of ſhipping off.

Note, That if theſe Goods ſhipp'd were bought by Order, and on the Accompt of the Employer with Ready-money, and not entred before in your Ledger. Make

Make [your Employer (naming his Name) his Accompt Currant Dr.] To Caſh for the Value of the Goods, and Charges of ſhipping off.
And Caſh Creditor *per contra.*

Caſe 6. When a Bill of Exchange is drawn on a Factor by his Employer, payable at time.

Rule. Make [Employer at ſuch a place (as before) his Accompt Currant] Dr. To him to whom the Bill is payable for the Content thereof.
Then make [him Cr. To whom the Bill is payable] (naming his Name) By your Employer his Accompt Currant for the ſame Summ.
Note, that if this Bill had been paid to Order of the Employer by the Factor preſently; the Employer's Accompt Currant muſt be made Dr. to Caſh for the Summ paid (naming to whom) And Caſh Cr. by the contrary for *Ditto* Summ.
And the Entry is the ſame with this laſt, when the Factor remits Ready-money to his Employer.

§. 5. *Factorage Accompts in Foreign Trade.*

Definit. THeſe Accompts are when a Factor cannot carry on the Buſineſs of thoſe whom he ſerves in Commiſſion without Aſſiſtance of Foreign Correſpondence, of whoſe Returns he is accomptable to his Employer.

Caſe 1. When Goods ſent to Sea are Inſured by me.

Rule. Make [Voyage to ſuch a place, for ſuch a one's Accompt (the Employer Conſigned to ſuch a Factor Dr.] To Caſh (if you paid the Inſurance-money preſently) and Caſh Cr. By Voyage, *&c.*
But if the Inſurance-money was not to be paid preſently: Then [Voyage To, *&c.*] Dr. To the Inſuror.
And the Inſuror Cr. By Voyage.

Caſe 2. When Goods are ſhipp'd by a Factor by Order of his Employer to his Factor in another Country.

Rule. Make [Voyage to ſuch a place for Accompt of your Employer Conſigned to your Factor (naming his Name) Dr.] To [my Employer his Accompt of Wares] for Charges at the Receipt of the Goods:
And To Caſh for Charges of ſhipping.

Then.

Then make [*per contra* Cr. the Accompt of Wares, And Cash.

Case 3. When you receive Advice that the Wares are sold, which were formerly sent to your Factor.

Rule. Make [Factor at such a place for Accompt of my Employer] Dr. To Voyage to such place, for *Ditto* Accompt for the Nett proceed as by Advice.

Then make [Voyage to the same place for Accompt of my Employer] Cr. By Factor at — for Accompt of my Employer.

Case 4. When you are to enter your Provision for Wares sold on a Foreign Accompt.

Rule. Make [Voyage to such a place (where your Factor resideth) for Accompt of my Employer] Dr. To Profit and Loss, for so much as your Provision (or Money for your Employment) amounteth to, as by your Agreement.

Then make [Profit and Loss Cr.] By Voyage to —— for Accompt of my Employer for the same Summ.

Case 5. When you receive Advice that your Factor hath made Abatement for Defects in Goods that he formerly sold.

Rule. Make [Voyage to such a place for Accompt of my Employer] Dr. To Factor at such a place for Accompt of your Employer, so much as abated.

Then make [Factor (at such a place) for Accompt of my Employer (at such a place Cr.) By Voyage (to the place your Factor liveth at) for Accompt of my Employer for the same Summ.

Note, that when you close the Accompt of Wares sold by your Factor with his Returns, *&c.* for Accompt of your Employer, you must make Voyage to your Factor; for Accompt of your Employer Dr. [To your Employer's Accompt Currant] for the Balance thereof. And the contrary Cr. By Voyage to such a place for Accompt of your Employer, for the same Summ.

§. 6. *Company Accompts.*

Definit. COmpany Accompts is, when a Stock is employed in Common between several Merchants in the Way of Trade, and each Partner is to have a Share of the Gain, or bear a Share in the Loss, in Proportion to his Share in the Stock, as is taught in the Rules of Fellowship in the last Chapter. *Case* 1.

Caſe 1. When Goods are bought and paid for by my ſelf, for Company Accompt.

Rule Make [Wares in Company between my Partner and Me (naming our ſeveral Shares of the Stock) Debtor] To Caſh for the Value of the Goods, *&c.*

[Caſh Cr.] By Wares in Company between Partner and Me for the ſame Summ.

Then make [my Partner (naming his Name) his Accompt Currant] Dr. To *Ditto* Partner's Accompt by me in Company for his Share of the Stock.

And his Accompt by me in Company Cr. By his Accompt Currant for the ſame Summ.

Note, that if the Goods were bought upon truſt, the Entry is the ſame; if inſtead of [Caſh] you make the Goods Dr. To, the [Seller] and him Cr. by the ſame.

Caſe 2. When I receive my Partner's Share of Caſh for the Goods bought in Company.

Rule. [Caſh Dr.] To my Partner his Accompt Currant for the Summ he paid me.

[His Accompt Currant] Cr. by Caſh for the ſame Summ.

Caſe 3. When you (having the management of the Accompt in Company) give an Aſſignment to a Cr. upon your Partner, for his Share of Goods bought in Company.

Rule. Make [the Receiver Dr.] To [your Partner his Accompt Currrant] for the Summ in the Aſſignment.

And Partner's Accompt Currant Cr. by the Demander for the ſame Summ ——

Caſe 4. When I receive Ready-money for Goods ſold in Company.

Rule. Make [Caſh Dr.] To Wares ſold in Company (always naming the Wares) between my Partner and Me (naming his Name, and each of our Shares) for ſuch Goods ſold ſuch a Perſon, ſo much as their Value.

And [Wares in Company between ſuch a one, and me] Cr. By Caſh for the ſame Summ.

Then make [Partner's Accompt by me in Company] Dr. To his Accompt Currant for his Share of the Caſh receiv'd.

And [Partner's Accompt Currant Cr. By his Accompt by me in Company for the ſame Summ.

Note, if theſe Wares had been ſold at time, the Entry is the ſame, if inſtead of making Caſh Dr. To Wares in Company;

pany; you make the Buyer Dr. To the ſame Wares: And [Wares in Company Cr. by the Buyers, *&c.*]

Caſe 5. When Goods are ſold in Company, part for Ready-money and part at time.

Rule. Make Caſh Dr. To Wares in Company, between my Partner and me, for the Money received in part.

And the Buy. Dr. To the ſame Ac. for the Money left unpaid: Then make Wares in Company between my Partner and me Cr. By ſundry Accompts (referring To the Folio's of Caſh) and the Buyer's Accompt for the whole Value of the Goods ſold.

2dly, Make [my Partner's Accompt by me in Company] Dr. To his Accompt Currant, for his Share of the whole Value of the VVares ſold.

And my Partner's Accompt Currant Cr. By his Accompt by me in Company for the ſame Summ.

Caſe 6. When I bring into Company Wares of my own, that are entred in my Ledger.

Rule. Make Wares in Company (naming their Names) between my Partner and me] Dr. To Wares (naming their Name again) in the Summ you bring them into Company for, naming for what Quantity, Price, *&c.*

Then make [VVares (as before, entred in your Ledger) Cr.] By the ſame VVares in Company between my Partner and me, for the Quantity brought into Company at ſuch a price.

2dly, Make [Partner his Accompt by me in Company Dr.] To my Partner's Accompt Currant for ſo much Goods brought into Company by me, of which his ſhare of the price is ſo much.

Then make [Partner his Accompt Currant Cr.] By his Accompt by me in Company for his ſaid Share ——

Caſe 7. VVhen VVares bought for Company Accompt and Booked, are ſhipp'd off To be ſold for the ſame Company Accompt.

Rule. Make [Voyage (to the place whither the Ship is bound, and Factor the VVares are conſign'd to) in Company between my Partner and me] Dr. To Goods ſhipp'd for their Value, To Caſh for Charge of Shipping, ſo much as paid for that.

Then make [VVares in Company between my Partner and me] Cr. By [Voyage in Company between us] for their Value. And [Caſh Cr.] By Charges of Shipping.

2dly,

2*dly*, Make [my Partner his Accompt Currant Dr. To his Accompt by me in Company for his ſhare of the Charge in ſhipping off. And

Ditto [Partner his Accompt by me in Company] Cr. By his Accompt currant for the ſame Summ ——

Caſe 8. When Wares are bought on Company Accompt to be paid for at Time, And are ſhipp'd off (and Charges paid) before Entry.

Rule. Make [Voyage to ſuch a place) in Company between my Partner and Me, conſigned to our Factor] Dr. To the Selling-man for the Value of the Wares, and To Caſh for the Charges of ſhipping, *&c.*

Then make [the Seller Cr.] By Voyage to ſuch a place, in Company between my Partner and me, conſigned to our Factor, for the Value of the Goods ſhipp'd. And

[Caſh Cr.] By Voyage in Company between my Partner and Me, conſigned to our Factor at ſuch a place, for the Charge till on Board.

2*dly*, Make [Partner his Accompt Currant] Dr. To *Ditto* Partner's Accompt by me in Company, for his ſhare of the Value of the Wares, and Charges till on Board.

And [his Accompt by me in Company] Cr. By his Accompt currant for the ſame ſhare of the Value and Charges of ſhipping.

Note, That if the Wares bought in this Caſe had been paid for in Ready-money, the Entry would be the ſame, with this Difference onely; That whereas firſt, Voyage in Company, *&c.* is made Dr. To the Seller, and he Cr. by Voyage, *&c.* you muſt make [Voyage in Company, *&c.*] Dr. To Caſh for the Value and Charges, And Caſh Cr. By Voyage, *&c.* for the ſame Summ.

Caſe 9. When I receive Advice that Wares for Company Accompt are ſold by our Factor.

Rule. [Factor at ſuch a place, for Company Accompt between my Partner (ſo much of the Stock) and (ſo much) me, our Accompt currant Dr.] To Voyage to ſuch a place in Company between my Partner and me (naming our Shares) conſigned to *Ditto* Factor for the Nett proceed as by Advice. And

[Voyage to ſuch a place in Company between my Partner and me (naming our Shares of the Stock) conſigned to ſuch a Factor] Cr. By Factor at ſuch a place for Company Accompt between my Partner and me, our Accompt currant for the ſaid Nett proceed.

Caſe 10. When I receive Advice that our Factor hath made Abatement for Defect in Goods ſold (between my Partner and Me) in Company.

Rule. Make [Voyage to —— in Company between my Partner and Me (naming our Shares always after the Name) conſigned to —— (Factor) Dr.]

To *Ditto* Factor for Company Accompt between my Partner and Me, for the Abatement for the Defect.

Then [Factor at ſuch a place for Company Accompt between my Partner and Me, our Accompt currant] Cr. By Voyage to —— in Company between my Partner and me, for the ſame Summ abated.

Caſe 11. When Money is remitted to me by our Factor, for Wares ſold, for Accompt of Company, and by me received.

Rule. Make [Caſh Dr.] To Factor at —— for Company Accompt between my Partner and me, our Accompt currant, for the Money receiv'd by Bill, and

Factor at —— for Company Accompt between my Partner and me, our Accompt currant] Cr. By Caſh for the ſame Summ ——

Then make [my Partner's Accompt by me in Company Dr.] To *Ditto* Partner's Accompt currant, for his ſhare in the Money receiv'd. And

[My Partner's Accompt currant Cr.] By Partner's Accompt by me in Company for the ſame Summ.

Note, That if this Money had been payable by Bill, at ſingle or double Uſance, *&c.* the Entry would differ little, only inſtead of making [Caſh Dr. To Factor, *&c.*] make his Accompt that accepteth the Bill, Dr. To Factor at —— *&c.* and *per contra* Cr.

Caſe 12. When I receive Wares from our Factor, in return for Wares ſold, by him for Company Accompt, and pay Charges for Freight, Cuſtom, *&c.* at Receipt thereof

Rule. Make [Wares received] Dr. To Factor at —— for Company Accompt between my Partner and Me, our Accompt currant

currant for the Value of the Goods and Charges till on board, as *per* Advice— ſo much.

And [Factor at—for Company Accompt between, *&c.* our Accompt currant] Cr. By Wares received for the ſame Summ——

Then make [Wares received] Dr. To Caſh for the Summ paid at the Receipt for Cuſtom, *&c.*

And Caſh Cr. By Wares received for the ſame Summ.

Then to place the Accompt between my Partner and Me.

Make [my Partner's Accompt by me in Company] Dr. To his Accompt currant for his Share, as *per* Invoyce of the return.

And [my Partner's Accompt currant] Cr. By his Accompt by me in Company for the ſame Summ.

Caſe 13. When I receive Advice that my Factor has ſhipp'd off, and conſigned Wares to our Factor in another Country, for Company Accompt.

Rule. Make [Voyage to—— conſigned to our Factor for Company Accompt between my Partner and Me] Dr. To Factor at——(*Viz.* my Factor that ſhipp'd the Goods) my Accompt currant for their Value and Charges, as *per* Advice of my Factor.

And my Factor (that ſhipp'd the Goods) at —— my Account currant Cr. By Voyage to—— (*Viz.* the place our Factor reſideth at) conſigned to our Factor in Company between my Partner and Me, for the ſame Summ.

Then make [my Partner's Accompt currant] Dr. To his Accompt by me in Company, for his Share of the Value and Charges. And

[My Partner's Accompt by me in Company] Cr. By his Accompt currant for the ſame Summ ——

Caſe 14. When Wares are returned by our Factor, to my Factor in another Country, for Wares ſold for Company, Accompt by our ſaid Factor.

Rule. [Voyage to ſuch a place conſigned to my Factor] Dr. To (our) Factor at——for Accompt of Company between my Partner and Me, our Accompt currant, for the Value of the Goods ſhipp'd. And

(our) Factor at—— for Accompt of Company, between my Partner and Me our Accompt currant] Cr. By Voyage

(to

(to ſuch a place) conſigned to [my] Factor for the ſaid Value and Charges.

Then make [my Partner's Accompt by me in Company] Dr. To his Accompt currant for his Proportion, as *per* Advice received of the Accompt.

His Accompt currant Cr. By his Accompt by me in Company, for the ſame Summ.

Caſe 15. When my Partner draws a Bill upon me payable at ſight.

Rule. Make [Partner (naming his Name) his Accompt Currant] Dr. To Caſh for the Content of the Bill paid. And Caſh Cr. By [my Partner's Accompt Currant] for the ſame Summ.

Caſe 16. When you cloſe an Accompt in Company, obſerve this

Rule. Make [Wares (*&c.*) in Company between my Partner] (naming his Share of the Stock, and ſo much me) Dr. To ſundry Accompts, for cloſing the Accompt, *viz.*

[To Profit and Loſs] for my Share of the Gain by Trading.

[To *Ditto*] for my Proviſion (or Employment) at ſo much *per Cent.* as by agreement. And

[Profit and Loſs] Cr. By the Summ, your Proviſion and Share of the Gain amounts to.

Then Wares, *&c.* in Company (as before) Dr. To my Partner's Accompt currant for his Share of the Gain. And [His Accompt currant Cr.] By Wares in Company, *&c.* for the ſame Summ.

Company Accompts are generally eſteemed very difficult: But if a Perſon has a good Underſtanding in proper Accompts, and Factorage, he will find this very eaſie, there being little difference more than this,

1. In the Title of an Accompt in Company, To take in your Partner's Name in Company, mentioning his, and your Shares of the Stock, *&c.*

2. After any thing is bought, ſold, ſhipp'd off, received, *&c.* and booked as in a proper or Factorage Accompt (having reſpect to the Title of Company Accompt as aforeſaid) you muſt take Care to make your Partner or Partners Accompt currant Dr. To or Cr. By his Accompt by you in Company, which you will eaſily know how to do by the 16 Caſes foregoing.

§ 7. *The Method of keeping the Waſte Book, Journal, and Ledger.*

THE Waſte-Book of me *C. D.* of *London*, Merchant: Containing all my Dealings from the Firſt day of *July* 1694.

In the Name of God. Amen.

An Inventory taken *July* the firſt, containing all my Eſtate in Caſh, Wares, and Debts, which I have at this Day: And alſo what Debts are owing by me to others, *&c.*

			li.	s.	d.
My whole Eſtate this day in Money, Wares and Debts is —— 3159 *li.* 10 *s.*					
(*Viz.*)		*li. s. d.*			
Imprimis. I have in ready Caſh ——		1540:00:00			
Item. I have Drugs, *viz.*	*li. s. d.*				
340 *l.* of Scammony at 10 *s. per l.*		170:00:0			
565 *l.* Opium at 6 *s. per l.* ——		169:10:0			
105 *C.* Gallingale at 40 *s. per C.* —		210:00:0			
		549:10:00			
Item. I have Raw Silk, *viz.*					
440 *l.* of *Tripoli* Belladine at 16 *s. per lb.* ——		352:00:0			
6, [illegible]egee of *Smirna* at 12 *s.* [illegible] lb ——		390:00:0			
1090 l[illegible] ——		742:00:00			
Item I have at *Aleppo*, conſigned to *Gilbert Gainwell* my Factor there, theſe *Norwich* Wares remaining unſold, *viz.*					
18 Ser. Denims which coſt 6 *l.* each,		108:00:0			
30 Grograms at 3 *l. per* piece —		90:00:0			
40 Barateens at 3 *l.* 5 *s.* each —		130:00:0			
88 pieces in all, which coſt ——		328:00:00			
			3159	10	00
Item. I am Indebted to ſeveral perſons, *viz.*					
To *William Richards* due the 3 *d.* inſtant,		150:00:00			
To *Richard Nicholſon* to Ballance his Accompt in my old Ledger ——		80:00:00			
To *Charles Rolling* due the 30 *th* inſtant —		140:00:00			
To *Simon Thuynemans* due *Aug.* 3 *d.* ——		140:00:00			
			510	00	00

(*The Method of the Entries in the Waſte-book.*)

	li.	s.	d.
July 2. 1694.			
Sold *George Higgs* 300 *l.* of Scammony for ready Money at 20 *s.* 6 *d. per* lb	307	10	00
Ditto. 10.			
Bought of *Richard Nicholſon* the *Norwich* Wares following, *viz.*			
10 Grograms at 3 *l. per* Piece — 30:00:00			
24 Barateens at 3 *l.* 6 *s. per* Piece — 79:04:00			
34 Pieces in all, amounting to	109	04	00
Of which I have paid 80 *l.* ready Money,			
And the reſt which is 29 *l.* 4 *s.* to be paid in 8 days.			
Ditto. 15.			
Received Advice from *Gilbert Gainwell*, my Factor at *Aleppo*, that he hath ſold to ſundry perſons for my Accompt 60 Pieces of *Norwich* Wares; the Nett proceed of which, as by the particulars in his Accompt on the File is 1500 Dollars, the Exchange at 4 *s.* 6 *d.* per Dollar, makes Sterling	337	10	00
Lent *George Higgs* the Summ of 500 *l.* for 3 Months, for which he is to pay me Intereſt at the rate of 8 *l. per Cent. per Annum.*			
So that the Money lent (as entered in the Caſh-book) is	500		
And the Intereſt thereof comes to	10		
Ditto 19.			
Sold *William Short* the following Druggs, *viz.*			
40 *l.* of Scammony at 21 *s. per l.* — 42:00:00			
350 *l.* of Opium at 12 *s. per l.* — 210:00:00			
390 *l.* in all for	252		
of which I have received 160 *l.* and the reſt, which is 92 *l.* to be paid the 30*th* Inſtant.			

(*The Method of the Entries in the Waſte-book.*)

	li.	s.	d.
July 20. 1694. Received from my Factor *Gilbert Gainwell* at *Aleppo* by my Order and on my proper Accompt 8 Cheſts of Myrrh, containing 30 C. Nett, which at 22 Dollars *per C.* comes to 660 Dollars, the Exchange at 54 pence *per* Dollar makes Sterling	148	10	00
Richard Nicholſon hath aſſigned the 80 *l* due to him from me, for the Balance of his Accompt in my old Ledger to *James Silver*, which I have paid to *Ditto Silver* on demand.	80	00	00
Ditto 25. *Gilbert Gainwell* Factor at *Aleppo*, hath remitted to me 600 Dollars, payable here at Double Uſance, by *Matthew Cleſſold*, for the value deliver'd there to *Mahoat Janezwar* the firſt of *April* laſt, the Exchange at 4 *s* 8 *d. per* Dollar, makes Sterling — Which Bill is accepted.	140	00	00
Ditto 30. Sold Alderman *Ryley* Mercer, the following *Norwich* Wares, *viz.* li. s. d. 10 Grograms at 3 *l.* 10 *s. per* Piece — 35:00:00 24 Barateens at 4 *l.* 4 *s. per* Piece — 100:16:00 34 Pieces, at — For which he hath given me an Aſſignment on *Peter Paygood*, to be paid me in 8 days, which I have accepted.	135	16	00
Sold *Simon Strutt* the following Raw Silk for ready Money; *viz.* li. s. d. 350 *l.* of *Tripoli*-Belladine at 30 *s. per* lb — 525:00:00 650 *l. Legee* at 25 *s. per* lb — 812:10:00 1000 *l.* in all, at —	1337	10	00

(*The Entry of the Inventory in the Journal.*)

THE JOURNAL of me *C. D.* of *London*, Merchant: Containing all my Dealings from the First day of *July* 1694.

In the Name of God. Amen.

An Inventory taken the first of *July*, 1694. of my present Estate, in Money, Wares, and Debts, this day owing to me, and what Debts are owing by me, *&c.*

Fol. Ledger		li.	s.	d.
	Sundry Accompts are Debtor to Stock in the Summ of 3159 *l.* 10 *s.* for so much Cash, Wares and Debts, owing to me this day, *viz.*			
1		*li.*	*s.*	*d.*
1	Cash for so much in Chest ———	1540	00	00
2	Druggs, *viz.*	*li.*	*s.*	*d.*
1	340 *l.* of Scammony at 10 *s. per l.*	170	00	0
	565 *l.* Opium at 6 *s. per l.* ———	169	10	0
	105 C. Gallingale at 40 *s. per* C.	210	00	0
	———	549	10	00
3	Raw Silk for 1090 ℔, *viz.*			
1	440 *l.* of *Tripoly*-Belladine at 16 *s. per l.* ———	352	00	0
	650 *l.* Legee of *Smirna* at 12 *s. per* ℔ ———	390	00	0
	———	742	00	00
1	Voyage to *Aleppo*, consigned to *Gilbert Gainwell* my Factor there, for *Norwich* Wares remaining unsold, *viz.*			
1	18 Ser. Denims that cost 6 *l.* each,	108	00	0
	30 Grograms at 3 *l. per* piece—	90	00	0
	40 Barateens at 3 *l.* 5 *s.* each—	130	00	0
	88 pieces in all, which amounts to ———	328	00	00
	———	3159	10	00
	Stock is Debtor to sundry Accompts 510 *l.* Due to sundry Persons, *viz.*			
3	To *Will. Richards* due the 3*d* instant—	150	00	00
2	To *Richard Nicholson* for the Foot of his old Accompt———	80	00	00
3	To *Charles Rolling* due the 30*th* instant,-	140	00	00
4	To *Simon Thuynemans* due *Aug.* 3 next,-	140	00	00
	———	510	00	00

The End of the Inventory.

(*The Method of Journal Entries.*)

		li.	s.	d.
	July 2. 1694.			
1	Caſh Debtor To Druggs for 300*l.* of Scammony ſold			
2	*George Higgs* for ready Money at 20*s.* 6*d. per l.*—	307	10	00
	Ditto 10.			
1	*Norwich* Wares Debtor to ſundry accompts 109*l.* 4*s.* for 34 pieces bought of *Rich Nicholſon*, viz.			
	li. s. d.			
	10 Grograms at 3*l. per* Piece——30:00:00			
	24 Barateens at 3 *l.* 6 *s.* each——79:04:00			
		109	04	00
1	To Caſh paid *Ditto Nicholſon* in part ——80:00:00			
2	To *Ditto Nicholſon*, to pay him the 25*th* Inſtant ——29:04:00			
	Ditto 15.			
1	*Gil. Gainwell* at *Aleppo* my Accompt Currant, Debtor to Voyage to *Aleppo*, conſign'd to *Ditto Gainwell*			
1	the Summ of 337 *l* 10 *s.* for the Nett proceed of Wares ſold, as *per* his Accompt for 1500 Dollars, the exchange at 54 pence Sterling *per* Dollar, makes Engliſh Coin——	337	10	00
3	*George Higgs* Debtor to ſundry Accompts the Summ of 510*l.* for 500*l.* lent him at Intereſt for 3 Months, at 8 *per cent. per ann.* viz. li. s. d.			
1	To Caſh for the Principal lent——500:00:00			
3	To Profit and Loſs for the Intereſt — 10:00:00			
		510	00	00
	Ditto 19.			
	Sundry Accompts Debtor to Druggs the Summ of 252*l.* for 390 ℔ ſold *W. Short* as followeth, li. s. d.			
2	40 ℔ of Scammony at 21 *s. per* ℔——42:00:00			
	350 of Opium at 12*s. per* ℔——210:00:00			
	(*viz.*)	252	00	00
1	Caſh for 160*l.* receiv'd in part of *Ditto Short.* (and)			
2	*Ditto Short* Debtor 92*l.* he is to pay me the 30*th* Inſt.			

(*The Method of Journal Entries.*)

		li.	s	d.
	July 20. 1694.			
2/1	Druggs Debtor to *Gilbert Gainwell* at *Aleppo* my Accompt Currant, 148 *l.* 10 *s.* 00 *d.* for 8 Cheſts of Myrrh, poize Nett 30 *C.* at 22 Dollars *per C.* makes 660 Dollars, the exchange at 54 pence *per* Dollar is Sterling	148	10	00
2/1	*Richard Nicholſon* Debtor to Caſh the Summ of 80 *l.* being the Balance of an Accompt due to him, which I have paid *James Silver* by Aſſignation of *Ditto Nicholſon.*	80	00	00
	Ditto 25.			
2/1	*Matthew Cleſſold* Dr. to *Gilbert Gainwell* at *Aleppo* my Accompt Currant 600 Dollars by Bill remitted to me by *Ditto Gainwell* payable at Double Uſance for the Value delivered there, to *Mahoat Janezwar* the exchange at 4 *s.* 8 *d per* Dollar is in *Engliſh* Coin	140	00	00
	Ditto 30.			
2/1	*Peter Paygood* Debtor to *Norwich* Wares the ſumm of 135 *l.* 16 *s.* for 34 pieces ſold Alderman *Ryley, viz.*			
	li. s. d.			
	10 Grograms at 3 *l.* 10 *s. per* piece — 35:00:00			
	24 Barateens at 4 *l.* 4 *s. per* piece——100:16:00			
		135	16	00
	For which Summ *Ditto Paygood* hath given me his Bill to pay in 8 days by Aſſignation of *Ditto Ryley*--			
1/3	Caſh Debtor to Raw Silk 1337 *l.* 10 *s.* for 1000 lb. ſold to *Simon Strutt* for Ready Money, *viz.*			
	li. s. d.			
	350 lb. of *Tripoly*-Bellad. at 30 *s. per* lb. 525:00:00			
	650 Legee at 25 *s. per* lb. ——— 812:10:00			
	1000 *l.* at	1337	10	00

Here ends the Journal.

(*The*

(*The Form of the Book of Houſhold Expences.*)

1694		*Houſhold Expences, Debtor.*	*li.*	*s.*	*d*
July	3	To Caſh paid *Daniel Dunmuch* for 1 Quarters Rent of my Dwelling-houſe, due at *Midſummer*-day laſt, in full	4	10	
	4	To Caſh for my Pocket Expences	4		
	15	To Caſh paid my Wife for Apparel, *&c.*	50	14	
	30	To Caſh paid *Su. Savenone*, the Houſe-keeper, for this Month	50	4	6
	31	To Caſh for my Pocket Expences	4		
		Carry'd to Caſh-book, fol. 1	149	8	6
		(*See how this is poſted into the Caſh-book, Cr. ſide.*)			

(*The Form of the Book of Charges of Merchandize.*)

1694		*Charges of Merchandize, Debtor.*	*l.*	*s.*	*d.*
July	1	To Caſh paid *Lawrance Lovemoney* for a Quarters Rent of my Ware-houſe, due at *Midſummer*-day laſt, and is in full	10		
	3	To Caſh paid for Poſt-letters		10	
	10	To Caſh paid for *Ditto*		12	4
	20	To Caſh paid Freight of 8 Cheſts of Myrrh	10		
		To Caſh paid Cuſtom of *Ditto* Myrrh	70	14	
	21	To Caſh paid Wharfage, Crainage, *&c.* of *Ditto*, at 5*d. per* Cheſt		3	4
		To Caſh paid Cartage of *Ditto* from the Key		6	
	31	To Caſh paid Porterage this Month		6	3
		To Caſh paid Demorage		4	
		Entred in Caſh-Book, fol. 1	92	15	11
		(*See how this Month's Charges of Merchandize is poſted into the Caſh-Book, Cred. ſide.*)			

(*The*

(*The Form of the Caſh-Book.*)

London, Anno Domini, 1694.

1694	*Caſh Debtor.*	*l.*	*s.*	*d.*
July	2 To Druggs, for 300 lb. of Scammony ſold *George Higgs*	307	10	
	19 To *Ditto*, Receiv'd of *W. Short* in part	160		
	30 To Raw Silk, receiv'd of *Simon Strutt*	1337	10	
	31 To *William Short*, receiv'd in full	92		
	Carried to fol. 1 in the Ledger	1897		

See how this Month's Accompt of Caſh receiv'd, is poſted into the Accompt of Caſh in the Ledger, fol (1) *Dr. ſide.*

(*The Form of the Caſh-Book.*)

London, Anno Domini, 1694.

1694		*Per Contra Creditor.*	*li.*	*s.*	*d.*
July	3	By *W. Richards*, paid him in full ——	150		
	10	By *Norwich* Wares, paid *R. Nicholſon* in part—	80		
	15	By *G. Higgs*, lent him at Intereſt for 3 Mon.--	500		
	20	By *R. Nicholſon*, paid *James Silver* by Aſſignation ——	80		
	25	By *Ditto Nicholſon*, paid him in full ——	29	4	
	30	By *Charles Rolling*, paid him in full- ——	140		
		By *Simon Thuynemans*, paid him in part- ——	30		
	31	By Houſhold Expences this Month, from fol. 1. ——	149	8	6
		By Charges of Merchandize this Month, as on fol. 1 ——	92	15	11
		Carried to Ledger, fol. 1. ——	1251	8	5

See how this Month's Accompt of Caſh paid is poſted into the Accompt of Caſh in the Ledger, Creditor-ſide, fol. (1).

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		*Stock Debtor.*	Fo.	*li*	*s.*	*d.*
July	1	To ſundry Accompts, as *per* Inventory —	—	510		
		To Ballance —		4354		01
				4056		01
1694		*Caſh Debtor.*				
July	1	To Stock, then in Cheſt —		1540		
	31	To ſundry Acc[ts] as *per* Caſh-Book, fol. 1 —		1897		
				3437		
1694		*Norwich Wares Debtor.*	pc.			
July	10	To ſundry Accompts for —	34	1,2 109	04	
		To Profit and Loſs gained by this Accompt-		3 26	12	
				135	16	
1694		*Voyage to Aleppo conſign'd to G. Gainwell Dr*				
July	1	To Stock for Wares unſold —		1 328		
		To Profit and Loſs gained by this Accompt-		3 150	02	06
				478	02	06
1694		G. Gainwell *my Accompt Currant Dr.*				
July	15	To Voyage to *Aleppo* conſign'd to *Ditto Gainwell* —		1 337	10	

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

				Fo.	*li.*	*s.*	*d*
1694		*Per Contra Creditor.*					
July	1	By ſundry Accompts, as *per* Inventory		—	3159	10	
		By Profit and Loſs gained by 1 Mo. Trade-		3	896	10	01
					4056		01
1694		*Per Contra Creditor.*					
July	31	By ſundry Accᵗˢ as *per* Caſh-Book, fol. 1		—	1251	08	05
		By Ballance reſteth Caſh		4	2185	11	07
					3437		
1694		*Per Contra Creditor.*	pc.				
July	30	By *Peter Paygood* for	34	2	135	16	
1694		*Per Contra Creditor.*					
July	15	By *Gilbert Gainwell* my Accompt Currant		1	337	10	
		By Ballance for Wares unſold		4	140	12	06
					478	02	06
1694		*Per Contra Creditor.*					
July	20	By Druggs for 8 Cheſts of Myrrh-		2	148	10	
	25	By *Matthew Cleſſold*		2	140		
		By Ballance due to me		4	49		
					337	10	

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		*William Short Debtor.*	Fo.	*li.*	*s.*	*d.*
July 19	To Druggs, due the 30th Inſtant		2	92		

1694		*Druggs Debtor.*	Gallingale and Myrrh. C.ᵉ	Opium and Scammony. lb	Fo.	*li.*	*s.*	*d.*
July	1	To Stock	105	905	1	549	10	
	10	To *G. Gainwell*, at *Aleppo*, my Accompt Currant	30	—	1	148	10	
		To Profit and Loſs, gained	—	—	3	284	10	
						982	10	

1694		Richard Nicholſon, *Debtor.*	Fo.	*li.*	*s.*	*d.*
July	20	To Caſh paid *James Silver* by Aſſignation	1	80		
	25	To Caſh paid him in full	1	29	04	
				109	04	

1694		Matthew Cleſſold *Debtor.*	Fo.	*li.*	*s.*	*d.*
July	25	To *G. Gainwell* at *Aleppo* my Accompt Cur.	1	140		

1694		Peter Paygood, *Debtor.*	Fo.	*li.*	*s.*	*d.*
July	30	To *Norwich* Wares for 34 pieces	1	135	16	

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		*Per Contra Creditor.*	Fo.	*li.*	*s.*	*d.*
July	31	By Caſh receiv'd in full———	1	92		

1694		*Per Contra Creditor.*	Gallingale and Myrrh. C	Opium and Scammony lb	Fo.	*li.*	*s.*	*d.*
July	2	By Caſh for Scammony--	—	300	1	307	10	
	19	By ſundry Accompts	—	390	1,2	252		
		By Ballance reſts unſold, *viz.* 215 *lb.* of Opium at 6 *s.* 105 *C.* of Gallingale at 40 *s. per C.* and 30 *C.* of Myrrh at 4 *l.* 10 *s. per C.* which in all coſt———			4	423		
						982	10	

1694		*Per Contra Creditor.*	Fo.	*li.*	*s.*	*d.*
July	1	By Stock———	1	80		
	10	By *Norwich* Wares, to pay the 25*th* Inſtant-	1	29	04	
				109	04	

	Per Contra Creditor.	Fo.	*li.*	*s.*	*d.*
	By Ballance due to me———	4	140		

	Per Contra Creditor.	Fo.	*li.*	*s.*	*d.*
	By Ballance due to me———	4	135	16	

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		George Higgs, *Debtor.*	Fo.	*li.*	*s.*	*d.*
July	15	To ſundry Accompts for Prin. and Int.	1,3	510		
1694		*Profit and Loſs, Debtor.*				
July	31	To Houſhold Expences	4	149	08	06
	31	To Charges of Merchandize	4	92	15	11
		To Stock gained by 1 Month's Trade	1	896	10	01
				1138	14	06
1694		Charles Rolling, *Debtor.*				
July	30	To Caſh paid him in full	1	140		
1694		William Richards, *Debtor.*				
July	3	To Caſh paid him in full	1	150		
1694		*Raw Silk Debtor.*	lb			
July	1	To Sock	1090	1	742	
		To Profit and Loſs gained by this Accompt		3	667	10
				1409	10	

(The Method of the Ledger Entries.)

London, Anno Domini, 1694.

				Fo	*li.*	*s.*	*d.*
		Per Contra Creditor.					
		By Ballance due to me		4	510		
1694		*Per Contra Creditor.*					
July	15	By *G. Higgs*, for Int. of 500 *l.* due *Oct. 15th*		3	10		
	31	By *Norwich* Wares gained thereby		1	26	12	
		By Voyage to *Aleppo*, gained thereby		1	150	02	06
		By Druggs gained thereby		2	284	10	
		By Raw Silk, gained thereby		3	667	10	
					1138	14	06
1694		*Per Contra Creditor.*					
July	1	By Stock		1	140		
1694		*Per Contra Creditor.*					
July	1	By Stock		1	150		
1694		*Per Contra Creditor.*	lb				
July	30	By Cash	1000	1	1337	10	
	31	By Ballance then rests unsold of *Tripoly* Belladine	90	4	0072		
					1409	10	

(The Method of the Ledger Entries.)

London, Anno Domini, 1694.

1694		*Houſhold Expences Debtor.*	Fo.	*li.*	*s.*	*d.*
July	31	To Caſh paid this Month —— - ——	1	149	08	06
1694		*Charges of Merchandize Debtor.*				
July	31	To Caſh paid this Month —— - — ——	1	92	15	11
1694		Simon Thuynemans *Debtor.*				
July	30	To Caſh paid him in part —— - ——	1	30		
	31	To Ballance due to him —— - ——	4	110		
				140		
1694		*Ballance Debtor.*				
Aug.	1	To Caſh reſteth therein this day — ——	1	2185	11	07
		To Voyage to *Aleppo* conſt. to *G. Gainwell* -	1	140	12	06
		To *G. Gainwell* at *Aleppo*, my Ac. Currant	1	49		
		To Drugs reſts unſold, 215 *lb.* of Opium at 6 *s. per lb.* 105 C. of Gallingale at 40 *s.* and 30 C. of Myrrh at 4 *l.* 19 *s. per* C. which in all coſt ——	2	423		
		To *Matthew Cleſſold*, for his Bill —— - —	2	140		
		To *Peter Paygood* —— - ——	2	135	16	
		To *G. Higgs* for Principal and Intereſt ——	3	510		
		To Raw Silk, for 90 *lb.* of *Tripoli* Bellad. reſting unſold which coſt ——	3	72		
				3656		01

(The Method of the Ledger Entries.)

London, Anno Domini, 1694.

1694		Per Contra Creditor.	Fo.	li.	s.	d.
July	31	By Profit and Loſs	3	149	08	06
1694		Per Contra Creditor.				
July	31	By Profit and Loſs	3	92	15	11
1694		Per Contra Creditor.				
July	1	By Stock	1	140		
1694		Per Contra Creditor.				
July	31	By *Simon Thuynemans* due *Aug.* 3.	4	110		
		By Stock	1	3546		01
				3656		01

Note, That the Tranſcript of the Debtor-ſide of the foregoing Ballance will be an Inventory of your preſent Eſtate in Caſh, Wares, and Debts; and of Creditor-ſide (leaving out Stock) what you owe, by which you carry on a new Accompt:

Viz.

An Inventory taken *Auguſt* 1. 1694, of my preſent Eſtate in Caſh, Wares, and Debts due to me; and alſo of what Debts are owiing by me to others, *&c.* viz.

	l.	*s.*	*d.*	
Imprimis, I have in ready Caſh ——	2185:	11:	07	
Item, I have at *Aleppo*, conſigned to *G. Gainwell*, *Norwich* Wares remaining unſold, which coſt ——	140:	12:	06	
Item, *G. Gainwell* oweth me for Wares ſold by him, and their Value not returned to me ——	49:	00:	00	
Item, I have Drugs by me unſold, *viz.*				
Opium 215 ℔ at 6 *s. per* ℔ —	64:	10:	00	
Galling 105 *C.* at 40 *s. per C.*	210:	00:	00	
Myrrh 30 *C.* at 4 *l.* 19 *s. per C.*	148:	10:	00	
——	423:	00:	00	
Item, *Matth. Cleſſold* oweth me upon Bill-	140:	00:	00	
Item, *P. Paygood* oweth me by Aſſignation-	135:	16:	00	
Item, *G. Higgs* oweth me upon Bond ——	510:	00:	00	
Item, I have Raw Silk unſold, *viz.* 90 ℔ of *Tripoli* Belladine, at 16 *s. per* ℔, coſt ——	72:	00	00	
——				3656:00:01

On the contrary, the Debts I owe are as follows.

Viz.

To *Simon Thuynemans* due the 3 *d.* Inſtant —— 110:00:00

To

To your Ledger you muſt have an Alphabet, for the ready finding every Accompt, whether Proper or Factorage, Domeſtick or Forreign, as of Men, Wares, Voyages, Profit and Loſs, and Accompts Currant, *&c.* the Method whereof let be thus; (having a Page (or as there is occaſion) for each Letter)

(*Viz.*)

C.

. . . . . *Caſh* —— Fol. 1
. . . . . *Charges of Merchandize* —— 4
Matthew — Cleſſold —— 2

D.

. . . . . *Drugs* —— 2

G.

Gilbert- — Gainwell *my Accompt Currant* — 1

H.

George — Higgs —— 3
. . . . . *Houſhold Expences* —— 4

N

. . . . . Norwich *Wares* —— 1
Richard — Nicholſon —— 2

P.

Peter- — Paygood —— 2
. . . . . *Profit and Loſs* —— 3

R

Charles — Rollings —— 3
William — Richards —— 3
. . . . . *Raw Silk* —— 3

S.

. . . . . *Stock* —— 1
William — Short —— 2

T.

Simon- — Thuynemans —— 4

V.

. . . . . *Voyage to* Aleppo, *conſigned to* Gilb. Gainwell — 1

§. 8. *How to Poſt an Accompt.*

What Poſting an Accompt is, is ſhewed in the Dictionary following, and in the Method I have here laid down for Book-keeping. Accompts are either poſted,

1. Out of the Waſte-Book into the Journal; or,
2. Out of the Books of Houſhold Expences and Charges of Merchandize into the Caſh-Book; or,
3. And principally, out of the Journal and Caſh-Book into the Ledger.

1. In Poſting out of the Waſte book into the Journal, you are to obſerve what is ſaid in the Accompt given of the Journal, Chap. 10. to which I need add nothing, the Directions there, and Examples of the ſeveral parcels in the foregoing Journal poſted out of the Waſte-book compared together, being ſufficient to inſtruct the Learner how any Waſte-book-parcel is poſted in the Journal.

2. Whatever is paid on accompt of Houſe-keeping, *&c.* as is directed in the Accompt of the Book of Houſhold Expences, Chap. 10. Or, on accompt of Charges of Merchandize, as you will find at the beginning of the ſaid Chap. 10. muſt, when a Month (as *January*, *February*, &c.) is ended, be ſumm'd up, and entered on the Creditor-ſide of the Caſh-book, as you will ſee in the Examples of theſe Books foregoing, which will make it plain.

3. The chief and moſt conſiderable part of Poſting is that of the Journal and Caſh-book into the Ledger, eſpecially of the Journal; which, to make as plain as I can, take the following Example, by which you will know how to poſt all the reſt.

Example.] The 10*th* Day of *July* 1694, I find in the Journal *Norwich* Wares Debtor to ſundry Accompts, To poſt which into the Ledger I firſt turn to the Ledger, to ſee what folio is vacant, or has room on it, which I find the 1ſt; therefore I turn to the Alphabet, and on the folio Letter (N) I write [*Norwich* Wares, fol. 1] as you ſee in the annext Alphabet; and then in the Ledger on fol. 1, I enter in a fair large hand [*Norwich* Wares Debtor] in one Line, and under that, the Month and Day, then [To ſundry Accompts] which Accompts being Caſh and *R. Nicholſon*'s, the firſt entred on folio 1, the ſecond on folio 2, I write fol. 1, 2 in the Line after [To ſundry Accompts] as you ſee in the Example, and the ſame in the long Colume in the Journal. And then I conſider, That if *Norwich*

wich Wares is Debtor to ſundry Accompts, fol. 1, 2, *viz.* To Caſh and *R. Nicholſon*, then it follows, that Caſh and *R. Nicholſon*'s Accompts muſt be Creditor By *Norwich* Wares; I therefore turn to *R. Nicholſon*'s Accompt, which having before found to be on fol. 2, I enter on the Creditor-ſide of his Accompt the Month and Day; then, [By *Norwich* Wares] ſo much as left due to him, referring to the folio on which *Norwich* Wares ſtands, *viz.* fol. 1, which write likewiſe in the Journal againſt *Norwich* Wares. Then I ſhould turn to Caſh in the Ledger, and make that Creditor by *Norwich* Wares: but that being done in the Caſh-book, 'tis ſufficient if at the end of the Month I make Caſh Creditor in the Ledger By ſundry Accompts for all the Money paid that Month, referring to the folio in the Caſh-Book which that Summ is brought from: And likewiſe I make Caſh (in the Ledger) Debtor to ſundry Accompts for all the Money receiv'd that Month, as you ſee by the Caſh-book and Accompt of Caſh in the Ledger foregoing. By this Example, and comparing the Entries in the ſeveral Books foregoing, you will eaſily know how to poſt any Accompt.

But note, That in all Accompts of Wares you muſt keep in a Colume next the left hand of the folio Colume the Pieces, Pounds, Yards, *&c.* bought of any Commodity, and likewiſe what is ſold; ſo will you eaſily ſee how much of any ſort of Goods remains unſold without telling or numbering the the ſame in the Ware-houſe; as in the Accompt of *Norwich* Wares, Drugs, and Raw Silk foregoing.

And when you have thus poſted your Journal you muſt likewiſe poſt your Caſh-book for that Month, or rather poſt both together, taking the days of the Month in due courſe; *i. e.* Where Caſh is made Debtor to a Perſon for Money received, due formerly, and for which he is made Debtor in the Ledger; you muſt take care to give ſuch Perſon Credit for the Caſh paid, which Caſh being only entered in the Caſh-book, you muſt therefore poſt from the Caſh-book. And the like where Money is paid for any Debt, the Perſon to whom the Caſh is paid muſt be charged Debtor to Caſh; as you will ſee in the Caſh-book foregoing; Money received from *William Short*, *William Short* has Credit for it. And on the Creditor-ſide of the Caſh-book *Richard Nicholſon*, *Charles Rolling*, *William Richards*, *Simon Thuynemans*, Houſhold Expences, and Charges of Merchandize, are each made Debtor in their ſeveral Accompts in the Ledger, To Caſh paid, referring to the Accompt of Caſh in the Ledger, and in the

the Accompt of Cash in the Ledger, referring to the folio of the Cash-book, not entering that folio in the Colume of the Ledger-folio. For your farther Information (if any is needfull) see the Cash-book and the Accompt given thereof at the beginning of this Chapter.

§. 9. *Directions for Closing an Accompt.*

What Closing an Accompt is, is shewed in the Dictionary; and all Accompts are closed either,

1. With Profit and Loss; or,
2. With Ballance; or,
3. With Profit, and Loss, and Ballance; or,
4. With Stock.

1. All Accompts of Goods or Wares; where all that was bought is sold, are closed with Profit and Loss, which is entered on the Debtor-side of the Accompt (if you gain thereby) or on the Creditor-side if you lose; of this the Accompt of *Norwich* Wares on fol. 1, is an Example.

2. All Accompts of Men are closed with Ballance on the Debtor-side if I ow to them, as the Accompt of *Simon Thuynemans*, folio 4; or on the Creditor-side if they are indebted to me, as the Accompt of *Matthew Clessold*, folio 2.

3. All Accompts of Wares, where all that are bought are not sold, are closed with Profit, and Loss, and Ballance, *i.e.* with Profit and Loss on the Debtor-side for the Summ gained by what is sold, and with Ballance on the Creditor-side for what the Goods remaining unsold cost; as in the Accompts of Drugs and Raw Silk.

4. No Accompts are closed with Stock, but Profit, and Loss, and Ballance; as in the Example following.

§. 10. *How to Ballance your Books.*

Having shewed how to Close any Accompt it will not be difficult to Ballance either a single Accompt or your whole Ledger, in order to know how much Cash, Wares, and Debts you have; what Debts you owe, and what you have gained by Trading since your last general Ballance.

1. To Ballance any single Accompt, summ up the Debtor and Creditor-sides, and put their Totals on a piece of waste Paper, where take their difference, which is the Ballance, and must be entered on the

the Debtor or Creditor-ſide, as is taught in Cloſing an Accompt; which done, the Summ of the Debtor and Creditor-ſides ſhall be equal.

But note, That in an Accompt of Wares the ſaid Difference is Profit or Loſs, and muſt be entred on that ſide whoſe Summ is leaſt, to make the Summs of Dr. and Cr. ſides equal; as taught before.

But to Ballance your Ledger for the end abovementioned.

Rule.] Take a Sheet of Paper, and on one ſide write [*Ballance Debtor*] as you ſee in the foregoing Accompt of Ballance; and on the other ſide write *Per Contra Creditor*, as the Sheet lies extended before you.

2. Cloſe and Ballance all your particular Accompts beginning with Caſh, (except Stock, and Profit, and Loſs) which having done throughout your Ledger,

3. Begin again at the Accompt of Caſh, and where an Accompt is cloſed with Ballance, enter the ſame on the contrary ſide of the Accompt of Ballance in your Paper, as in the Accompt of Caſh foregoing [*Caſh is Creditor*] by Ballance 2185*l.* 11*s.* 7*d* therefore Ballance (on your Paper) muſt be made Dr. to Caſh 2185*l.* 11*s.* 7*d.* ſo in the Accompt of *Simon Thuynemans* he is made Dr. to Ballance, and therefore Ballance muſt be made Cr. by *Simon Thuynemans.*

Likewiſe where an Accompt is cloſed with Profit and Loſs, enter the cloſing Summ on the contrary ſide of the Accompt of Profit and Loſs; as in the Accompt of *Norwich* Wares, which is cloſed Dr. to Profit and Loſs 26*l.* 12*s* 00*d.* therefore Profit and Loſs muſt be Creditor by *Norwich* Wares, as you ſee in the Accompt of Profit and Loſs.

And where you meet with an Accompt cloſed both with Profit and Loſs, and Ballance, as that of [Voyage to *Aleppo* conſigned to *G. Gainwell*] is, becauſe Ballance is on Cr. ſide, make Ballance on your Paper, Dr. to Voyage to *Aleppo*, &c. 140*l.* 12*s.* 6*d.* And becauſe the ſaid Accompt of Voyage, *&c.* is Dr. to Profit and Loſs, make the Accompt of Profit and Loſs Creditor for the like Summ, *viz.* 150*l.* 2*s.* 6*d* And thus having guided you through the ſeveral Caſes that may happen, proceed with the reſt of the Accompts to the end of your Ledger (leaving Profit and Loſs uncloſed till you have cloſed and ballanced the reſt of the Accompts except Stock, as before taught; then

4. Cloſe the Accompt of Profit and Loſs with Debtor to or Creditor by Stock, and carry the foot to the contrary ſide of the Accompt

compt of Stock, as in the Example of the foregoing Accompt of Profit and Loſs cloſed with [Debtor to Stock 896*l.* 10*s.* 1*d.*] Stock muſt therefore be made Cr. by Profit and Loſs 896*l.* 10*s.* 1*d.*

5. With the Difference of Dr. and Creditor-ſides of Ballance, *viz.* with Dr. To, or Cred. By Stock, cloſe the Accompt of Ballance, and carry the foot to the Accompt of Stock; as in the foregoing Accompt of Ballance, it is cloſed Cred. by Stock 3546*l.* 00*s.* 01. therefore Stock muſt be Debtor to Ballance 3546*l.* 00*s.* 01.

6. *Laſtly*, Summ up the Dr. and Creditor ſides of the Accompt of Stock, and if they Ballance, or are alike, your Books have been kept right, otherwiſe you have committed ſome Error. For

(A General Rule for Ballance.)

Your preſent Stock and what you owed when you began the Accompt now ballanced, will be always equal to your Stock when you began your Accompts, and what you have gained ſince, to the Day the general Ballance is made. And the Reaſon of this is plain: For my former Stock and what I have gained ſince muſt be my preſent Stock; as in the Example foregoing of Stock, my former Neat Stock (Debts deducted) is 2649*l.* 10*s.* 00*d.* and I have gained ſince, as appears by the Accompt of Profit and Loſs 896*l.* 10*s.* 01*d.* the Summ of which is 3546*l.* 00*s.* 01*d.* = my preſent Stock. But if (becauſe the method of the Accompt of Stock requires it) I add my Groſs Stock when I began Trade, to what I have ſince gained, the Summ will conſequently be juſt ſo much more than my preſent Neat Stock as was the Summ I owed when I began Trade; which if I therefore add to my preſent Stock the Summ muſt be equal to my former Groſs Stock and the Summ gained, as 'tis plain in the Example;

For if 3159*l.* 10*s.*—510*l.* + 896:10:01 be = 3546:00:01;

Then it follows,

That 3159*l.* 10*s.* + 896:10:01, is = 3546:00:01 + 510*l.*

(*Note*, That (—) is leſs, (+) more, and (=) equal to.)

CHAP.

CHAP. XI.

Maxims for Young Merchants, containing the Cuſtoms and Practice of Merchants, with reſpect, 1. To Bills of Exchange. 2. To Factors and Factorage. Laws for Brokers, Brokage, &c.

§. 1. *Concerning Bills of Exchange.*

1. IN drawing a Bill the Drawer ought to reſpect, 1. The Place where and Time when the Bill is drawn, and in a Foreign Bill the Exchange agreed on. 2. The Time when the Content of the Bill is payable. 3. To whom. 4. The Summ to be paid. 5. The Exchange in words at length. 6. Of whom the Value is received. 7. To whoſe Accompt it is to be placed. 8. The Drawer's Name. 9. A Direction thereof to him on whom the Bill is drawn; as you will ſee in the Example following, Chap. 15.

2. Bills are either oreign or Inland.

3. Inland Bills are ſuch as are drawn and payable in the ſame Country, which is uſually either at ſight or ſome Days after.

4. A Bill drawn to pay at ſight, is payable 3 days after the Accepter firſt ſeeth it.

5. Inland Bills are never proteſted; but if the Perſon on whom they are drawn will not accept the ſame, they are to be returned by the firſt opportunity, that the Drawer may ſatisfie him that delivered the Money.

6. Foreign Bills are ſuch as are drawn in one Country to be paid in another.

7. Foreign Bills are for the moſt part payable at ſingle, double or treble Uſance.

8. Uſance is the ſpace of Time between any day of one Month and the ſame Day of the next following, as from *January* the 4*th* to *Feb.* 4*th*, *July* 4 to *Auguſt* 4, &c. when the place where the Bill is drawn and that where it is payable both compute their Time by one Stile, as both by Old or both by New; except at ſome particular places, where through Cuſtom Uſance is ſometimes more than a Month.

9. There is likewiſe a cuſtomary Allowance of certain Days after the ſingle, double, *&c.* Uſance before a Bill is payable; and this is more in one Country than in another.

10. So that before it can be juſtly told when a Foreign Bill is due there are theſe things to be conſidered.

1. What Uſance is eſteemed with reſpect to ſeveral Countries.
2. What places reckon their time by old and what by new Stile.
3. What days are allowed for payment of a Bill in ſeveral Countries over and above their ſingle, double, *&c.* Uſance.

11. Uſance from *London* to and from *Middlebourg*, *Roterdam*, *Amſterdam*, *Antwerp*, *Bruges*, and other parts of the *Low-Countries* is 1 Month after the Date of the Bill, double Uſance 2 Months, *&c.*

Uſance from *Venice* or *Florence* to *London* is 3 Months.
Uſance from *Lisbon* to *London* and *Antwerp* is 2 Months.
Uſance from *Hamburgh* to *London* and *Contra* is 2 Months.
Uſance from *Antwerp* to *Rome* and *Venice* is 2 Months.
Uſance from *Genoa* to *Antwerp* is uſually 2 Months.

12. The Accompt of Time with reſpect to New and Old Stile are as follows.

Theſe Places reckon by New Stile.

Amſterdam, *Roterdam*, *Antwerp*, *Leyden*, *Harlem*, *Middleburg*, *Ghent*, *Bruſſels*, *Brabant* and moſt of the *Netherlands*. Alſo *Paris*, *Lyons*, *Marſeilles*, *Bordieux*, and all *France*. *Lisbon*, *O Porto*, *Cadiz*, *Bilboa*, and all the reſt of *Spain* and *Portugal*; all *Italy* and *Venice*. Alſo in *Germany* all the Popiſh Electors and Princes, *Ausburg*, *Lints*, *Crembes*, *Wyen*, *Dantzick*, and all *Poland*.

Theſe places reckon by Old Style, which is 10 days after the New.

England, *Scotland* and *Ireland*, all the Proteſtant Electors and Princes of *Germany*; *Copenhagen*, and all *Denmark*; *Embden*, the Proteſtant Cantons of *Switzerland*; *Hamburgh*, *Eaſt Friezland*, *Geneva*: All *Sweden*, *Holſtein*, *Lubeck*, *Strasburg*; all *Saxony*, *Riga* and *Lepſwick*.

13. The time allowed in ſeveral places for the payment of Bills over and above the time mentioned in the Bill, is,

		Days	
At	*London*	3	is allowed, according to Cuſtom, after the time in the Bill.
	Rotterdam	6	
	Paris	10	
	Roan	5	
	Hamburgh	12	
	Antwerp	14	

14. If

14. If a Bill is payable at Uſance, it is payable 1 Month after the Date of the Bill. As if *A.* at *Amſterdam* drew a Bill on *L.* at *London*, payable at Uſance dated *March* the 2*d*. here I conſider that Uſance is 1 Month, *i. e. April* the 2*d*. But becauſe they reckon their time by New Style, or 10 days before us at *London*, therefore I take 10 days from *April* 2, and the remainder is *March* 23, to which add the 3 days of Grace according to the Cuſtom of *London*, and the Summ is *March* the 26*th*. on which day, before the Sun goes down the Bill is due and payable by *L.*

15. A Merchant may deliberate 24 Hours before he needs to accept a Foreign Bill.

16. But if he refuſeth after 24 Hours Conſideration to accept that Bill, the perſon to whom the Bill is payable may proteſt it in the Office of a Publick Notary.

17. Proteſts are uſually made (with relation to Foregn Bills) either

1. For Non-acceptance.
2. For better Security; or,
3. For Non-payment.

18. If the perſon on whom a Bill is drawn refuſe to accept the ſame you muſt take a Publick Notary to be a Witneſs of the Refuſal (which is Noting a Bill) and proteſt againſt him for Non acceptance; (the Form of a Proteſt you have in the Chapter following of Merchants Preſidents:) This muſt be done, as muſt all other Proteſts, between Sun and Sun in the day time. And tho' the Merchant you proteſt againſt be not at home, the Proteſt is nevertheleſs valid if done by a ſworn Publick Notary at the perſon's Houſe or Lodging on whom the Bill is drawn.

19. Proteſts are made for better ſecurity when the Accepter of a Bill proves inſolvent, or of bad repute.

20. After theſe Proteſts are drawn on a piece of Paper under a Copy of the Bill, and entered in the Publick Notaries Books, the ſaid Proteſt and Copy of the Bill are returned to him that paid the Value, but not the Bill it ſelf, unleſs afterwards by expreſs orders of him that paid the Value.

21. Upon the Receipt of a Proteſt of a Bill the perſon that paid the Value takes it and goes to the Drawer to whom the Value was paid, who muſt give better Security if the Proteſt was made therefore; or if it was made for Non-acceptance, the Drawer muſt either give better Advice to the perſon who formerly refuſed to accept the

Bill, or elſe a new Bill on ſome other, together with Security for the payment of all Charges of Proteſt, *&c.*

22. If a Foreign Bill become due and is not paid, he to whom the Money is payable muſt proteſt for Non-payment, and return the Proteſt and a Copy of the Bill to the deliverer of the Value, as before, who muſt demand the Money of the Drawer to whom the Value was paid, and of the Security if the Bill had been formerly proteſted for Non-acceptance or better Security. But if the Bill was accepted but not paid, then he that paid the Value upon receipt of the Proteſt may oblige the perſon to whom the value was paid, to give good Security for the ſpeedy payment of the Principal Money, with all Charges, and upon refuſal may recover the ſame at Law.

23. The perſon to whom a Bill is payable muſt take care to demand it on the very day it becomes due.

24. The Charge of Noting and Proteſting Bills are as follows.

For Noting a Bill	within the City	1	6
	without the City	2	6
For Proteſting a Bill	within the City	3	0
	without the City	5	0

25. If any one pay a Bill of Exchange (as is too frequent upon Rebate, *&c.*) before it be due, and he to whom the Money is ſo paid proves Inſolvent, before the time the Money is payable by the Bill, the Deliverer upon Advice of his Friends Inſolvency, Orders the Money to be paid to ſome other, which not being done, he will recover great Damages of the Drawer and Accepter of the Bill, if not the whole Content thereof.

26. If a Bill of Exchange be left for Acceptance, as is common, at the requeſt of the perſon on whom it is drawn, or his Servant; and if it be miſlaid, or not to be found to return to the Preſenter in due time, when he ſhall demand the ſame, the perſon on whom it is drawn ſhall give him to whom it is payable his Note under his Hand and Seal to pay the Money according to the Bill; which if he refuſeth to do, the perſon to whom the Money is payable may proteſt for Non-acceptance and Non-payment, as tho' he had the Bill, otherwiſe the Cuſtom of leaving Bills for Acceptance would be diſſolved, and the courſe of Trade greatly obſtructed.

27. If an accepted Bill be loſt by him to whom it is payable, he muſt in the preſence of a Publick Notary ſignifie the ſame to the Acceptor, who when the Bill becomes payable ſhall pay the Money notwith-

withſtanding the Bill is loſt, upon Bond or other Writing given to bear him harmleſs, or to be a ſufficient Voucher for the payment of the Bill. But if the Acceptor deny to do this, he to whom the Money is payable may proteſt when the Money is due for Non-payment, and recover the ſame by due courſe of Law.

28. There can be no revoking an accepted Bill, but the Acceptor is become abſolute Debtor to him to whom the Bill is payable for the Content thereof.

29. If the perſon to whom a Bill is payble die before it be due, there muſt be demand made however of the Money on the day it becometh due. And if upon offering good Security to ſave the Acceptor harmleſs from any Action, *&c.* of the Executors and Adminiſtrators of the Deceaſed, he refuſe to pay, you muſt cauſe Proteſt to be made, as is common for Non-payment.

30. If the party that accepted a Bill die before it become due, demand muſt be made of his Executors or Adminiſtrators on the day the Bill is payable, and if they refuſe to pay the Bill, Proteſt muſt be made for Non-payment as if the Acceptor were living and had refuſed to pay the ſame.

31. The Drawer of a Bill ought at the ſame time to give his Correſpondent a Letter of Advice, That he has drawn a Bill upon him, at ſuch a time, for ſuch a Summ payable to ſuch a perſon, where he muſt incert the Summ payable both in Words at length and Figures, with other things, as mentioned in Article the firſt foregoing.

32. No one ought to pay a Bill without a Letter of Advice, nor any Summ by Letter of Advice where a Bill is mentioned to be drawn, becauſe much Damage may enſue upon ſeveral accounts.

33. If the Summ in Words at length and Figures in a Bill of Exchange do not agree, it is ſafeſt to take that Summ which agrees with the Letter of Advice, whether it be that in Figures or Words at length, becauſe it cannot be ſuppoſed two miſtakes ſhould happen juſt alike, in writing a Summ three times, tho' one miſtake may be very probable. But if the three Summs all differ in the Bill and Letter of Advice, the beſt way is to take that Summ for true which is in words at length in the Bill, tho' the ſafeſt way is to ſend with all ſpeed to the Drawer for freſh Advice. For if he on whom the Bill is drawn refuſe to accept it, there can no Proteſt be made, becauſe the Summ is uncertain, tho' if the ſecond Bill be of the ſame Date

Date with the firſt there will be no time loſt to the perſon to whom it is payable.

34. In drawing of Foreign Bills it is uſual and very proper to draw two or three of the ſame Tenor and Date, and to ſend them in ſo many ſeveral Letters of Advice, that in caſe one miſcarry the courſe of Exchange and Trade may not be retarded or interrupted thereby. And in this the Drawer muſt be ſure to take care, if he draws two Bills, to ſay in the 2d Bill, At ſuch a time pay this my 2d Bill of Exchange [my firſt not paid] Or if he draws 3 Bills, to ſay in the 2d [my firſt and 3d not paid, *&c.*] and in the firſt [my 2d and 3d not paid, *&c.*] and in the 3d [my firſt and 2d not paid unto, *&c*] otherwiſe he on whom the Bills are drawn might through miſtake pay more than one of the Bills.

35. If a Bill be preſented for Acceptance, and he on whom it is drawn will accept it only to pay part of the Bill, or at a longer time than is limited in the Bill, the perſon to whom it is payable muſt proteſt for Non-acceptance, as is before directed. But when the Bill becomes due, and the Payer is willing to pay part; ſuch part may be receiv'd, and Receipt given for it on the backſide of the Bill; and Proteſt muſt be made for Non-payment of the remainder.

36. The Acceptance of a Bill by a Wife or Servant, or any other, not having an Order in Writing under Hand and Seal, ſo to do from the perſon on whom a Bill is drawn, is invalid, and is no legal Acceptance, unleſs it can be proved, that ſuch Wife, Servant, *&c.* uſed to accept Bills for ſuch perſon, the cuſtom of which will go a great way in making the Acceptance ſufficient.

37. Verbal Acceptance of a Bill is ſufficient, provided it be done before Witneſs. But the ſafeſt way is to cauſe him on whom the Bill is drawn to underwrite the Bill in theſe words [Accepted by me *A. B.*] Or if the Bill is drawn at ſo many days ſight then the Acceptor muſt put the time when he accepts it, becauſe on that depends the time of payment, thus [Accepted *July* 4. 94, by me *A. B.*]

38. It is counted Ridiculous among Merchants to ſay in a Bill of Exchange [*Pray pay*, &c.] it being proper and Merchant-like, to ſay [*pray*, &c.] 1ſt. Becauſe Bills of Exchange are to have ſuch Honour and Reſpect as not to [*pray.*] 2d. Becauſe Merchants being ſuppoſed men of great Buſineſs write only what is abſolutely neceſſary, avoiding all Complements and ſuperfluous Expreſſions.

preſſions. 3. Becauſe for the moſt part the Acceptor of a Bill has Effects in his Hands of the Drawers equivalent to the Content of the Bill, which he may demand at pleaſure.

39. There are four perſons principally concerned in all Bills of Exchange. 1. The Deliverer of the Money to the Drawer. 2. The Drawer or Indorſer who receives the Money and gives his Bill for it to the Deliverer. 3. The perſon on whom this Bill is drawn; and 4. Him to whom it is payable. Of theſe the Deliverer of the Money to the Drawer and he to whom the Bill is payable are Correſpondents, and ſo are the Drawer and he on whom the Bill is drawn: So that the Drawer is anſwerable for his failure on whom the Bill is drawn; and he that paid the value to him that is to receive it: And in default of payment of a Bill he to whom it is made payable certifyeth the ſame to him of whom the Value was receiv'd, who preſently takes his courſe with the Drawer to whom the Value was paid both for his own and his Security to whom the Bill is payable; all which ought to be throughly conſidered before you can have any tolerable Notion of the Myſteries of Exchange.

Obj. But ſome may ſay, That if the perſon to whom a Bill is made payable can recover his Money of the Acceptor by due courſe of Law without proteſting, and not otherwiſe with proteſting, to what purpoſe are Bills proteſted?

Anſ. Becauſe in caſe of Proteſting he to whom the Bill is payable has the Security of the Drawer, Acceptor, Indorſers, and him that paid the Value for his Money, and may Sue all or which he pleaſeth by the Cuſtom of Merchants; but he can only Sue the Acceptor and him that paid the Value if Proteſt be not made.

40. If you pay a Debt with a Bill that is payable to you or Order, you muſt firſt write your Name on the backſide of the Bill, which is Aſſigning it, as practiſed among Traders. But if you pay a Debt with a Note payable to ſuch a one or Bearer, then you only deliver the Note. And it is Wiſdom in Bankers, *&c.* That pay part of a Bill or Note to make the Indorſement croſs that part which is moſt wrote on, to avoid Deceipt by taking off the Indorſment.

§. 2. *Concerning Factors, their Power, Duty, Commiſſions, &c.*

To make this Chapter uſefull and intelligible it will be neceſſary to ſhew,

1. What a Factor is.
2. Commiſſion to a Factor.
3. The Power of a Factor.
4. The Duty of a Factor.
5. Factorage, or Proviſion due to Factors.
6. Factors, called Brokers, what they are, their of Buſineſs and Proviſion due to them according to Statute Law.

I. A Factor is one that is employed to buy or ſell any kind Merchandize for another, and differeth from a Servant in this; That whereas a Servant or Apprentice doth Buſineſs for a Yearly Salary, or for nothing but his Charges, and ſerveth only his Maſter; a Factor doth buſineſs for ſo much in every hundred Pounds worth of Goodr he ſelleth or buyeth; which is called Proviſion (as ſhall be ſhewed by and by) and is employ'd for ſeveral Merchants or Traders at the ſame time, and is not their Servant but their Factor or Correſpondent.

II. Commiſſion to a Factor is the Order or Conditions given to him by his Employer for the buying or ſelling any Commodity, by which he is to act.

All Commiſſions are either Abſolute or Limited.

1. An Abſolute or Perfect Commiſſion is when an Employer gives his Factor free power to buy ſell or barter a Commodity at Diſcretion, or as he thinks fit; in which Commiſſion are uſually theſe words [*Buy (or Sell) ſuch a Commodity as the Market goes*;] or [*as to price I leave it wholly to you, and deſire you to act as for your ſelf.*]

But a Limited Commiſſion doth bind or tye the Factor to a certain Price for the buying or ſelling any kind of Merchandize, in which Commiſſion are uſually theſe words [*Buy (or ſell) ſuch a Commodity at ſo much, or if you cannot, let it alone*] or [*If you cannot buy or ſell ſuch a Commodity at ſuch a price keep it till farther order.*] And ſometimes the word [*Commiſſion*] is uſed for [*Proviſion.*]

III. The Power of a Factor dependeth on his Commiſſion; and if he act contrary to that, he is liable for what Loſſes enſue thereby. Thus if a Factor have a limited Commiſſion which orders him to ſell Goods

Goods for ready Money, he has no power to give any time, for if he does and the Buyer proves Insolvent, the Factor must be responsible for the same to his Employer; but if this Factor had order to give time, and in that time the Buyer prove Insolvent; the Factor having observed his Commission the Loss shall be his Employers. Or if a Factor have an Absolute Commission to sell Goods to whom and at what time he thinks fit, then hath he the same power with the Merchant or Employer, and is not answerable for any Loss that may be the Consequence of his Dealing, but hath likewise power to make Composition with any one that breaks or proves Insolvent, and to abate as much of a Debt due to his Employer as he pleaseth, provided his Abatement is no more than the rest of the Creditors have done.

IV. As to the Duty of a Factor I shall shew it in most Cases, as briefly as I can; which is,

1. To be very exact in observing his Commission or Order of his Employer.

2. To be often advising the rise or fall of the Commodities his Employer deals in, and what sells best, and of the course of Exchange.

3. To answer all Letters punctually and in time; but especially,

4. A Factor is obliged to advise his Employer whenever he buyeth or selleth, Shippeth off or receiveth Goods; for if he sells a parcel of Goods and neglects to give Advice thereof, and in the mean time the Buyer proveth Insolvent the Factor shall pay the Debt, altho' he had an absolute Commission, as aforementioned; for no Man giveth Commission to have his Goods sold and not to know of it, tho' the Commission be absolute with respect to the manner of selling.

5. If a Factor *(says Malyns)* sell Goods for his own account to another, payable at time, and receiveth the same when it is due, and in the mean time letteth other Mens Money remain in that Man's Hand unpaid for Goods by him formerly sold; this Factor is to be answerable for that Money to those other Men, altho' he should never recover a Penny of it, for he cannot without fraud bear with the non-payment of other Mens Money when due, and procure the payment of his own.

6. If a Factor buy a Commodity according to Commission, and afterwards the Price advanceth, and the Factor fraudulently converteth the gain thereby to his own use, the Merchant in this case may recover damages of his Factor, by the Custom of Merchants upon proof thereof.

7. If a Factor by the advice of his Employer buy a Commodity with his Employer's Money, or by his Credit, and the Factor without Advice ſelleth the ſame again for his own benefit, the Merchant ſhall recover this gain of the Factor, and ſhall be moreover amerced for the ſame.

8. If a Factor ſell his Employer's Goods to a Man diſcredited, and that Buyer afterward breaketh before payment, the Factor ſhall pay for the ſaid Goods, unleſs he can prove that he was ignorant of it, or that he truſted the Man for Goods of his own alſo.

9. If a Factor do by falſe Entry in the Cuſtom-Houſe conceal part of the Cuſtom without Advice of his Employer, whereby the Goods become forfeit to the Prince, the ſaid Factor ſhall anſwer the Value thereof to his Employer as they coſt, if for Goods to be tranſported, or as they might have been ſold, if it be for Goods to be Imported.

10. If a Factor or Merchant procure a Merchant-Strangers Goods, to pay but *Engliſh* Cuſtoms by ſaying they are his own; ſuch Factor or Merchant ſhall forfeit all his Goods to the King.

11. If a Factor make return to his Employer for the Neat proceed of Goods ſold, in prohibited Goods, without Commiſſion, the Factor ſhall bear the Loſs or Damage; but

12. If a Factor do any unlawfull act by order of his Employer, the Employer ſhall make good the ſame, and the Factor ſhall pay treble Damage.

13. If a Factor be robb'd of his Employer's Goods, he ſhall bear the Loſs.

14. If a Factor buyeth Goods which afterward becometh damnified by accident, the Merchant or Employer ſhall bear the Loſs.

15. A Factor is only chargeable with the Money which he receives for Goods ſold by him, *&c.* but if any part prove falſe Coin or bad he is to make it good.

16. If a Factor by Bill of Exchange maketh a Summ of Money payable to a perſon that breaks before the ſaid Bill is due to be paid; the Factor in this Caſe may and ought to countermand his Bill from the Acceptor, which if he have paid the broken Merchant before due, he is anſwerable for the ſame to the Factor.

17. If a Factor have Orders from his Employer to Aſſure Goods, *&c.* for a certain Voyage, and have Money in his hands ſufficient to pay the *premium*; if this Factor neglect the ſame, and do not Inſure, and the ſaid Ship or Goods periſh at Sea; the Factor ſhall be anſwerable

rable for the Damage to his Employer, unleſs he give very undeniable Reaſon why he did not Inſure. Thus ſays *Malyns. Lex Mer.*

18. If a Factor having made Aſſurance upon Goods, *&c.* which happen to be loſt, and the Factor (having no Order, *Libra* or Commiſſion to at Diſcretion) maketh Compoſition with the Aſſurors, he ſhall be anſwerable to his Employer for what Abatements he maketh as well as for the reſt that was Aſſured.

19. If a Factor do wrong to a Merchant by Errors in Accompts, he is to make good the ſame, not only the Principal but alſo of the Intereſt thereof; and the contrary, if the Factor happen to wrong himſelf by not charging the Merchant, and it is therefore uſual for all Factors in their Accompt of Sails or Invoyces to write at the bottom of the Accompt [*Errors excepted.*]

V. Factorage or Proviſion is the Wages of a Factor, and is ſo much to the Factor for every hundred pounds Value of the Proceed of Goods bought or ſold by the ſaid Factor, which Proviſion is uſually more or leſs, according to the diſtance of the Factory or place of Trade; thus,

A Merchant at *London* alloweth his Factor

	l. per Cent.	
At *Barbadoes* and moſt other parts of the *Weſt-Indies*	5	Proviſion.
At *Smirna* or *Aleppo* and other parts of *Turky*	3	
At *Leghorn* and other parts of *Italy*	2½	
Spain, *Portugal*, or *France*	2	
Hamburgh and other parts of the *Eaſt-land*	2	
Rotterdam and other parts of the Provinces	1½	
Inland Factors have uſually	1¼	

Which Factorage is incerted among the other Charges the Factor has been at concerning his Employer's Goods, as Ware-houſe Room, Brokage, Wharfage, Cuſtom, *&c.* and being deducted out of the Total Summ the Factor ſold his Employer's Goods for, the remainder is called the Nett Proceed of the Accompt.

VI. Brokers are a kind of Factors there being Brokers for almoſt all kind of Trades, who are uſually decayed Merchants or Men that know their Trade well, but perhaps have not a Stock to ſet up to trade themſelves, having great Acquaintance, they are employed by Merchants to bring Cuſtomers to buy their Merchandize, for which the Merchants uſually allow the Brokers about half *per Cent.* Theſe Men are moſtly of known Integrity, and upon the Broker's word the Merchants often give the Buyers Credit for many hundred Pounds worth of Goods.

There are alſo other kind of Brokers, *viz.* Exchange Brokers and Brokers of Stock.

Exchange Brokers make it their buſineſs to know the alteration of the Courſe of Exchange, and to inform Merchants that have Money to receive or pay beyond Sea, who are proper perſons for exchanging or doing thereof; as if I have 100*l.* Sterling to be paid at *Rotterdam*, &c. the Exchange Broker finds me out a Man to whom if I pay the Money here, will give me his Bill drawn upon his Correſpondent to pay the like Summ there to my Factor or Order. Or if I have 1000*l.* to receive here from my Factor at *Hamburgh*, &c. this Broker will find me out a perſon that will pay me the Money here on Condition of my Bill drawn on my Factor to pay the like Summ in *Flemmiſh* Money to his Correſpondent there; for which he has Brokage (as alſo to other places) 2*s.* *per* hundred pound Sterling.

Brokers of Stock are ſuch as buy and ſell Shares in Joint Stocks for any one that ſhall deſire them; as if I am minded to buy two Shares in the *Eaſt-India* Stock, I ſpeak to a Broker if he knows of any to ſell, he enquires and finds one that will ſell two Shares, which the Broker buyeth for me at the Price currant on the Exchange, and when the ſame are transferred to me in the Company's Book, I pay for them. And it has been uſual to give theſe Brokers for their Brokage or Proviſion as followeth:

	l.	*s.*	*d.*	
For *Hudſons-Bay* Stock	01	00	00	*Per* Share.
Eaſt-India	00	10	00	*Per* Share.
African Stock, or other petty Stocks, as Glaſs, Lead, Linnen, Copper, *&c.*	00	05	00	*Per* Share.

And at this Rate there are ſome have got 1000 or 1500*l.* *per An.*

But

But now the number of Brokers and their Brokage are limited by a Statute made *Anno* 8 and 9 *W.* III. which being requiſite to be known both by Brokers, Merchants, and other Traders, I have incerted the Heads thereof, as follows.

1. *No perſon ſhall follow the Employment of a Broker, nor act as ſuch within the Bills of Mortality of the City of* London, *untill he be admitted by the Lord Mayor and Aldermen of the ſaid City.*

2. *All Brokers ſhall at their Admittance take an Oath truly and faithfully to perform that Office between party and party without Fraud or Colluſion, according to this Act.*

3. *All Brokers within* 3 *Months after ſuch Admittance ſhall take the Oath of Allegiance and Supremacy, as by the Statute* 1 W. *and* M. *and ſhall ſign the Aſſociation appointed by an Act* 7 W. III. *and ſhall enter into a Bond to the Lord Mayor, Citizens, and Commonalty of the Penalty of* 500 l. (*the Condition to which, as in this Act verbatim is expreſſed, you will find in the Chapter of Preſidents following.*)

4. *The Number of theſe Brokers* (*including all the ſorts beforementioned,* viz. *Exchange, Trade, and Stock-Brokers*) *are not to exceed* 100; (*And at preſent there are but* 80 *choſen and admitted.*)

5. *The Fees paid by a Broker at his Admittance ſhall not exceed* 40 *Shillings.*

6. *The Names of the Brokers admitted ſhall be affixed on the* Royal Exchange, Guild-Hall, *and other publick places, as the Lord Mayor,* &c. *ſhall think fit*; (*which is done accordingly; the Brokers Names being now to be ſeen in Print on the* Royal Exchange, *&c.*)

7. *Any one uſing the Trade or Employment of a Broker who is not legally admitted ſhall forfeit* 500 l. *over and above all other Forfeitures by this Act.*

8. *And if any perſon employ any Broker that is not thus legally ſworn and admitted, ſuch perſon ſhall forfeit* 50 l.

9. *And if any perſon not being a ſworn Broker, according to the true intent and meaning of this Act, ſhall deal as a Broker in diſcounting Tallies, Exchequer Bills, Bank Bills or Notes, or in Stock-jobbing, or ſelling of Bank Stock, or to any other Intereſt or Security upon any Fund granted by Parliament: Such perſon offending ſhall forfeit* 500 l. *and being legally convicted ſhall ſtand in the Pillory* 3 *ſeveral days, one hour in the Morning of each day.*

10. *Every ſworn Broker admitted as aforeſaid, ſhall keep a Book which ſhall be called,* The Brokers Book, *wherein ſhall be fairly entered*

red all Contracts and Bargains, within 3 *days after making thereof, therein inserting the Buyer and Seller's Names, to the end such Book may be produced when lawfully required; and the Broker omitting to keep such Book shall forfeit* 50 l.

11. *Any Broker taking above* 10 s. per Cent. (*i. e.* per *hundred pound value of the thing bought or sold*) *for Brokage, shall forfeit* 10 l.

12. *All Brokers legally sworn and admitted according to this Statute, shall carry about them a Silver Meddal, having on one side His Majesty's Coat of Arms, and on the Reverse the Arms of the City of* London, *with the Name of such Broker, who shall at the concluding of all Bargains, Contracts, and Agreements by him made, produce such Meddal to the parties concerned, or shall forfeit* 40 s. *for every omission.*

13. *And if any Broker lawfully admitted shall deal for himself in Exchange or Remittance of Money, or shall buy any Tallies, Orders, Bills or Share, or Interest in any Joint-Stock, to be assigned or transferred to his own use; or shall buy any Goods, Wares, or Merchandize to sell again for his own benefit, or shall make any gain or profit in buying or selling any Goods over and above the Brokage, he shall forfeit* 200 l. *and being convicted shall be uncapable to Trade, Act or Deal as a Broker for any person whatsoever.*

14. *All Contracts entred into or made by any person whatsoever, to be performed after the 1st of* May 1697, *and upon which any* Premium *already is, or shall hereafter be given for Liberty to put upon, Accept, Receive, Deliver or Refuse any Share or Interest in any Joint Stock, Tallies, Orders, Exchequer Bills, Exchequer Tickets, or Bank Bills whatsoever (except such Contracts of the nature aforesaid as are to be performed within* 3 *days, to be accounted from the time of making the same) is and shall be utterly null and void; and every such* Premium *shall be paid back and restored to those that gave the same, their Executors, Administrators or Assigns.*

15. *And if any* Premium *shall be given or paid contrary to this Act, or if any person shall Trade or Deal as a Broker not duly admitted according to this Act, and the same shall come to the knowledge of any sworn Broker, if he do not forthwith make discovery, but shall conceal such Offence, upon due proof thereof before the Lord Mayor and Court of Aldermen of the City of* London *against such sworn Broker, he shall be displaced, and be for ever incapable to act or deal as a Broker for the future.*

16. *The Forfeitures given by this Act shall be recovered by Action of Debt, Bill, Plaint or Information in any of His Majesty's Courts of Record*

Record at Weſtminſter, *in which no Eſſoyn, Privilege, Protection or Wager of Law ſhall be allowed, and but one Imparlance, the one Moiety whereof ſhall be to the uſe of the King, His Heirs and Succeſſors, and the other to the Proſecutor.*

17. *Provided that no perſon for buying or ſelling Corn, Cattel, or or other Proviſion, or Cole, ſhall be eſteemed a Broker within the meaning of this Act.*

18. *That no Broker ſhall buy, ſell, or bargain for Money, any Tallies or other Securities upon any Fund granted by Parliament unleſs he be licenſed ſo to do by any three of the Lords of the Treaſury, under the Penalty of forfeiting* 500l.

19. *This Act is in force from the Firſt of* May, 1697, *for* 3 *Years, and from thence to the end of the next Seſſion of Parliament.*

As to Pawn Brokers or Tally-men I think it not worth while to ſay any thing of them, but the Reader may find what they are in the Dictionary following.

CHAP. XII.

Sheweth the Product or Commodities produced by all the Countries in the World, with the Chief Towns of Trade and Bigneſs, compared with England.

1. Great Britain *produceth theſe following*, viz.

BEſides the various kinds of Cattel, Dear, Fowl, (wild and tame) Fiſh, Grain, Fruits of the Field, Orchards and Gardens, *&c.* which would be too tedious, and not ſo proper for my preſent Subject; there are very fine and great abundance of Sheeps-Wool, as that of *Herefordſhire, Leiceſterſhire* and the *Iſle of Wight*, which maketh Woollen-Cloth (as fine as the *Spaniſh*) as that of *Devonſhire, Gloceſterſhire, Yorkſhire*, &c. Stuffs; as thoſe of *Norwich*, Crapes, Grograms, Barateens, Camlets, Tamarines, Callamanco's, Antarines, Paragons, *&c.* of *Exeter*, as Says, Sempaternums, Perpetuanoes, *&c.* Druggets, Serges, Fuſtians, Bays, Silks, Velvets, Sattins, Flannels, Linnen-Cloth, and Flax and Hemp on which they

they are made; alſo very good Paper made of Linnen Cloth, Hats, Rugs, Bed-ticking; excellent Lether of almoſt all ſorts; Tinn, Copper, Lead, Allome, Copperas; good Silver and Iron, and things made thereof; Stockings of all ſorts, as Silk, Worſted, Woollen and Thread; all ſorts of Ironmongers Wares, Tallow, Hides, Oyles, Hopps, Butter, Cheeſe, Honey, Wax, Glew, Salt-Peter, Gunpowder, Tobacopipe, Brick, Lyme, Slate, Marble, Allabaſter, and other Stones little inferior to Diamonds; Salt, Soap, Potaſhes, Glaſs, and Saffron the beſt in the World; Sea Coal and *Scots*-Coal (in the *North* called *Cannel*;) Liquors of Malt and Apples, as Beer, Ale, Syder, Perry, Metheglin, Brandy, Mum, alſo Mead, beſides ſeveral ſorts of Wines not much inferior to thoſe of *Spain* and *France*, as Elderberry, Strawberry, Goosberry, Rasberry, and many others. It containeth 38 Counties of *England*, 16 Counties of *Wales*, and 35 of *Scotland*: Chief City, *London*; and of Trade, *London*, *Briſtow*, *Leverpoole*, *Newcaſtle*, *Hull*, *Plymouth*, and *Falmouth*, in *England*; *Edenburgh*, *Aberdeen*, *St. Andrews*, *Glaſcow* and *Lieth* in *Scotland*.

2. Ireland *produceth theſe Commodities.*

Wool, Yarn (excellent Good) Flax, Linnen-Cloth, Furrs, Hydes, Tallow, Hemp, Honey, Wax, Herrings and many other ſorts of Fiſh; Frizes, Ruggs, Salt-Beef, Pipe-ſtaves, Cattle (black and white) Butter, Cheeſe, Salt, Wheat (and moſt other Grains,) Iron, Lead. It containeth 32 Counties, the chief Towns of Trade *Dublin*, *Kingſale*, *Gallaway*, *Limerick*, *Drogheda*. This Country is about $\frac{3}{5}$ of *England*.

3. France *produceth theſe Commodities chiefly.*

Wines, Paper, Almonds, Corral, Linnen-Cloth (as Dowlas, Lockrams, *&c.*) Salt, Brandy, Silks, Velvets, Buckrams, playing-Cards, Glaſs, Wheat and all kind of Grain, Roſen, Pruons. It containeth 12 Governments beſides the Dutchy of *Lorrain* and *French Compte*, *Paris* is the chief City, but the chief for Trade are *Nants*, *Burdeaux*, *Lyons* and *Morlaix*. This Country is near 3 times as big as *England*.

4. *The* Low-Countries, or 17 Provinces *chiefly produce*,

Tapeſtry, Fine Linnen, Silks, Velvets, Ropes, Butter, Cheeſe, Buffs, Lether, Ox Hides, Armours, Bruges-Thread, Chimney-backs, Steel, Hopps, Bruſhes, Grograms, Camlets, Fine-Tape, Bottles, Pots, large Horſes, Salt, Soap, Sword-Blades, *&c.* Chief City of the 7 *United Provinces Amſterdam*, and of the 10 *Spaniſh*, *Antwerp*; and

and chief of Trade *Amſterdam*, *Rotterdam*, *Bruges*, *Antwerp* and *Middleburg*. Theſe 17 Provinces are about $\frac{1}{3}$ of *England*.

5. Spain *and* Portugal *produce chiefly theſe Commodities.*

Wine, Wool, Madera, Sugar, Oyles, Almonds, Anchovies, Anniſeed, Figs, Raiſons, Bayberries, Oranges, Lemons, Saffron, Soap, Iron, Allom, White-Marble, Licoras, Sumack, Cork, Woad, Rice, Silk, and Lamb-skins. It is divided into 20 Kingdoms and Provinces, the chief Town is *Madrid*, but chief for Trade are *Bilboa*, *Cadix*, *Lisbon*, *Galicia*, *Barcelona*, *Maliga*, and *Sevil*; and is more than twice as big as *England*.

6. Italy (*including the Common-wealth of* Venice) *produceth chiefly theſe Commodities.*

Sarſenets, Velvets, Taffata's, Fuſtians, Cloth of Gold and Silver; Wine, Cottons, Currans, Rice, Raw-Silk, Allom, Vitriol, fine Glaſs, Grograms, Thrown-Silk, Sattin, Corn, Oyl, *&c.* It is divided into 12 Provinces beſide the Iſles of *Sicily*, *Sardinia*, and *Corſica*; the chief City of all which, is *Rome*, but the chief of Trade are *Leghorn*, *Venice*, *Meſſina*, *Genoa*, and *Palermo*. This Country is (with the Iſles) as big as one and a half of *England*.

7. Germany *chiefly theſe Commodities.*

Wool, Steel, Lattin, and Iron-wire, Fuſtians, Lead, Coperas, Allum, Hams, Linnen-Cloth, Yarn, Paper, Bell-mettal, Quickſilver, Mumm, Rheniſh-Wine, Tinn, and many Iron-works: It is divided into 10 Circles, the chief City is *Vienna*, of Trade *Vienna*, *Norremberg*, *Quedlinburg*, *Brunſwick*, *Emden*, *Strasburgh*, *Frankfort*, *Collogn*. This Country is more than 3 times as big as *England*.

8. Swedeland, Norway, Denmark, *and other parts of* Eaſtland, *produceth*

Ox-hides, Goat and Buck-skins, rich Furrs, Metalls, Oaks, Firrs, Honey, Tallow, Bowſtaves, Aſhes, Cables, Canvas, Maſts, Dale and Clap-boards, Pitch and Tarr, Cordage, Ropes, Hemp, Flax, Linnen, Yarn, Stockfiſh, Wax, Wainſcote, Wheat, Rye, *&c.* Chief Towns of Trade, *Hamburgh Copenhagen*, *Stockholm*, *Wiborg*, *Sleſwick*, *Lubeck*, *Bergen*, *Calmar*, *Abo*, *Notteburgh* and *Riga*; theſe Parts contain 13 Provinces or Parts. *Sweden* is twice as big as *Denmark*, and together, they are more than 4 times as big as *England*.

9. Poland *produceth chiefly*,

Maſts for Ships, Linnen, Pitch, rich Furrs, Wax, Boards, Salt, Amber, Aſhes, Milk, Butter, Cheeſe, Roſin, Soap, Corn. It is divided into 12 Provinces, chief Town is *Cracaw*, and of Trade,

Dantzick, *Wilna*, *Warſaw*, *Cracaw*, and *Breſte*. This Country is about 3 times as big as *England*.

10. Ruſſia, *or* Muſcovy, *produceth chiefly*,

Fine Leather, Furrs, Martins, Sables, Train-Oyl, Wax, Honey, Slad, Hemp, Flax, Iron, Salt-peter, Brimſtone, *&c.* It is divided into 37 Provinces, chief Town *Moſcow*, and of Trade, *Moſcow*, *Archangel*, *Kola*, and *Regan*. This Country is about 12 times as big as *England*, but a great part of it is uninhabited.

11. Turky *in* Europe *produceth*, *chiefly*;

Wines, Oyl, Mettals, Damask, Velvets, Vitriol, Sulpher, *Turky* Grograms, *&c.* It contains 18 Provinces; chief Town is *Conſtantinople*, and of Trade, *Nipoli*, *Miſithra*, *Corfu*, *Salonichi*, *Belgrade*, *Adrianople*, *Setines*, and *Bialogrod* or *Budziack*. This Country is about 5 times as big as *England*.

12. Turky *in* Aſia *produceth*,

Raw-Silk, Cotton-wool, Druggs, as Opium, Gauls, Ruburb, *&c.* Soap, Camlets, Grograms, Tapeſtry, excellent Balm, Wine, Oyl, Cotton-Yarn, Mohair, Honey, Goats-hair, Worſted, Box-wood, and many other Commodities of leſſer note. This is that part of the World which the famous *Turky* Company bring all their rich Ships from, and it is divided into 3 parts, *Natolia*, *Syria* and *Armenia*, and they are ſubdivided into 19 Beglerbegs, beſides the Iſles of *Cyprus*, *Rhodes*, &c. The chief Towns of Trade are *Aleppo*, (the chief of this Country) *Scandaroon*, *Smyrna*, *Famaguſta* (in *Cyprus*) *Maraz*, *Acſar*, *Burſa*, *Tarſo*, *Cogni*, *Amaſia*, *Acra*, *Ham*, *Tripoli*, *Scham*, *Damas*, *Gaza*, *Jeruſalem*, *Arzerum* and *Balſora*. This Country is about 6 times as big as *England*, to which, adding the *Turks* Dominions in *Europe*, and thoſe in *Africa*, as *Egypt* with part of *Barbary*, *Abiſſina* and *Zanguebar*, makes the whole *Turks* Dominons about 18 times as big as *England*, which is but $\frac{1}{17}$ of the whole Earth, altho' they are vulgarly accounted $\frac{1}{4}$ thereof.

13. Arabia *produceth chiefly*,

Gold, precious Stones, Coffee, Cinnamon, Myrrh, Balm, Frankinſence, Benjamin, Manna, Caſſia, Tea, *&c.* Chief Towns of Trade are *Medina* (chief of the Country) *Mecca*, *Aylan*, *Heratt*, *Jamama*, *Ziden* and *Dhafar*. This Country is about 15 times as big as *England*, and borders *South-weſt* on the Red Sea where the Children of *Iſrael* paſſed through on dry Land.

14. Perſia

14. Perſia *produceth chiefly*,

Precious Stones, eſpecially rough Diamonds Manufactures of Gold and Silver, rich Silks, Carpets, Sele-skins, Goat-skins, Alabaſter, Myrrh, Fruit, and almoſt all ſorts of Mettals. Chief Towns of Trade are *Heſpaam* (the chief of this Country) *Amoul*, *Sousfer*, *Siapour*, *Sliras*, *Lar*, and *Taures*.. This Country is about 13 times as big as *England*.

15. *The* Eaſt-Indies *or* Moguls *Empire produceth chiefly*,

Callicoes, Canes, Cottons, Velvets, Silk, Taffata's, Carpets, Muſlain, Indigo, Alloes, Sattins, Salt-peter, Spices, Amber, Borax, Ambergreece, Rhuburb, Wormſeed, Sal-Armoniack, Rice, Tea, Fans for Women, Cornelion Rings, Aggats, rough Diamonds, Pearl, China-ware, Cocoa-Nutts, Cinnamon, Ginger, Pepper, Caſſia, Gold and Silver, Proceline Earth, Bengale and Alabaſter. Chief Towns of Trade are (on this ſide the *Peninſula* or neareſt part of *India*) *Surrat*, *Bombay*, *Cambay* and *Daman*; and on the farther ſide the *Peninſula*, the chief Towns are on the Coaſt of *Coromandell*, *Bengale*, *Fort St. George*, *Biſnagar*, *Maliapur*, *Negapitan* and *Agra* the Seat of the *Great Mogull*. This Country is about 19 times as big as *England*.

16. China *produceth chiefly*,

Gold, Silver, precious Stones, proceline Diſhes, China-ware, Quickſilver, China-wood, Sugar, Cottons, Silks, Camphire, Rhubarb, Civett, Musk, Ginger. Chief Towns of Trade are *Pekin*, *Kianguing*, *Hangchen*, *Cinan* and *Quangchen*. This Country is about 18 times as big as *England*, and is ſaid to have in it 1485 Cities.

17. Tartary *produceth chiefly*,

Rich Furrs, as Sables and Martins; Musk, Cinnamon, Silk, Flax, Camletts, Rubarb, and other Drugs. Chief Towns of Trade, *Togull*, *Cambalu*, *Xamo* and *Charcan*. This Country is the biggeſt Empire in the World, being 70 times as big as *England*, and greater than all *Europe*, tho' the *N. E.* is little known.

18. Georgia *produceth*,

Bevers, Martins, and other Furrs; Lether, Wax, Linnen, Thread, Honey. Chief Towns of Trade, *Tefflis*, *Sophia* and *Zittach*. This Country is about 3 times as big as *England*.

19. Africa *produceth chiefly*,

Gold, Ambergreece, Elaphants-teeth, Guinea-pepper, Red-wood, Hydes, Wax, Sanders, Sugar, Civet, Oyl, Cordovans, Hemp, Flax, Dates, Almonds, Indigo, Gum, Oſtrage-feathers, Amber, Ebony, Canes, Rice, Citrons, Lemmons, Copper, Coco-nuts, Cloves, Saf-

fron, Chriſtal, and abundance of Negroes, which furniſh our Plantations in *America* with Slaves. In this Country the Royal *African* Company have had ſeveral Factories along the Sea-coaſt, between *Guinea* and the *Cape of Good Hope*, as *Gambo*, *Sierra-Leona*, *Madre-Bomba*, *Cape Miſſerado*, *Cormontyn*, *Emacham*, *Rio-Nuno*, *The Ivory Coaſt*, and *The Gold Coaſt*, ſome of which are now under the *Dutch*. There are likewiſe many curious Towns of Trade, or Ports in *Barbary*, as *Sally*, *Morocco*, *Tangier*, *Fez*, *Ceuta*, *Algiers*, *Sancta-Crux*, *Saphia*, *Tripoli* and *Barca*. And the *Madagaſcar Iſle* produceth Ginger, Cloves, Red Sanders, Saffron, Wax, Amber, Gum, Ebony, Chriſtal, Cocoa-nuts, and Metalls. Chief Towns of Trade, *Charemboule* and *Fauſhere*. *Africa* is about 120 times as big as *England*, and the Iſle of *Madagaſcar* is about 2 times as big as *England*.

20. America *produceth chiefly*,

1. About the *North* part the *Hudſons-Bay* Company bring Bever and other rich Furrs, Whale-Oyl, Stock-fiſh, *&c.* Their chief Towns and places of Trade are *Inquebet*, *Quebeck*, *Port-Nelſon*, *Hudſons-Bay*, *Padouſack*, *Breſt*, and *Port Royal*. 2. The middle part produceth theſe excellent Commodities, *viz.* Cotton-wool, Sugar, Tobacco, Furrs, Indigo, Ginger, Cloves, Mace, Nutmegs, Roſin, Turpentine, Copper, Tarr, Deal-boards, Gold, Silver, Pearls, Cocheneal, Honey, Balm, Amber, Hydes, Tallow, Salt, Medicinal Drugs. Chief Towns of Trade are *Boſton* and *London* in *New England*, *New York*; *Philadelphia* in *Penſilvania*; *Oxford* in *Maryland*; *James Town* and *Wiccomoco* in *Virginia*; *Charles Town* in *Carolina*; *Port-Royal*, *Sevill* and *St Jago* in *Jamaica*; *Antego* and *Barbadoes* of the *Charribe Iſles*, and *Mexico* in *New Spain*. 3. The *South* part of *America* produceth, beſide Veniſon, Fiſh and Fowl, Gold and Silver in abundance, Balſom, precious Stones, Long-pepper, Gums, Roſin, Drugs, Cottons, Tobacco, Cochenele, Braſil-wood, Sugar, Train-Oyl, Braſs, Iron, Copper, Honey. Chief Towns of Trade, *Caramanta*, *St. Migvel*, *Panama* and *Morequinto* in *Firmland*; *Poſton*, *Cuſco*, *Limma*, *Baeſa* and *Creux de Nueva* in *Peru*; *St. Salvador*, *St. Vincent* and *St. Sebaſtian* in *Braſil*; *Aſſumption*, *Conception*, *Villa-Rica* and *Cividad* in *Paraguay*; and *St. Jago*, *Mondoe* and *Sorena* in *Chile*. This part of the World called *America* is about 90 times as big as *England*.

CHAP.

CHAP. XIII.

Concerning Rates of Foreign Poſt Letters.

BY an Act of Parliament made *Anno* 12 *Car.* II. Chap. 35. Confirmed by Act of Parliament, 13 *Car.* II. Chap. 7. the Rates of Poſt-Letters ſent out and into *England* to and from beyond the Sea are as followeth.

	Letters ſent Outward.	*Single,*	*Doub*	*Treb.*	*Ounc.*
	The Port of Letters from *England.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Ireland.	To *Dublin* in *Ireland*	0:6	1:0	1:6	2:0
France.	To *Paris*	0:9	1:6	2:3	2:0
	To *Burdeaux, Rochell, Nants, Byon, Orleans, Tours,* and places of like diſtance. Port paid to *Paris*	0:9	1:6	2:3	2:0
	Morlaix, St. Maloes, Caen, Newhaven, and places of like diſtance, Port paid to *Roan*	0:6	1:0	1:6	1:6
Holland and *Flanders.*	*Sluis, Fluſhing, Middleburg, Delph, Amſterdam, Roterdam, Hague, Liſle, Dunkirk, Oſtend, Ipre, Antwerp, Ghent, Bruges, Bruſſels,* and other parts of *Holland* and *Flanders*	0:8	1:4	2:0	2:0
Germany and *Poland.*	*Noremberg, Bremen, Dantzick, Lubeck, Lipſwick,* and other places of like diſtance, Port paid to *Hamburgh*	1:0	2:0	3:0	4:0
	Hamburgh, Collogn, Frackfort, Port paid to *Antwerp*	0:8	1:4	2:0	2:0
Venice.	*Venice, Leghorn, Geneva, Rome, Naples, Meſſina,* and other parts of *Italy* by way of *Venice Francfort Mantua*	0:9	1:6	2:3	2:8
Turky.	*Smirna, Aleppo, Conſtantinople, Marcelia,* and other parts of *Turky,* Port paid to *Marcelia*	1:0	2:0	2:9	3:9

The

The Port of Letters to *England.*	*Single,*	*Doub.*	*Treb.*	*Ounc.*
France. From *Callais, Diep, Bouloign, Abbeville, Amience, St. Omer* and *Montrell*	*s. d.* 0:4	*s. d.* 0:8	*s. d.* 1:0	*s. d.* 1:0
Roven	0:6	1:0	1:6	1:6
Bourdeaux, Nants, Rochel, Byon, Tours, Orleans, and places of like diſtance	1:0	2:0	3:0	4:0
From moſt other parts of *France, Italy, Germany,* and *Turky*	0:8	1:4	2:0	2:0
But from *Leghorn, Genoua,* and other parts of *Italy* by way of *Lyons Franct. pro Lyons*	1:0	2:0	2:9	3:9

And note, That by a Proviſo of the Act aforeſaid, no Merchant ſhall pay any thing for the Port of any Accompt not exceeding 1 Sheet of Paper. And all Bills of Exchange, Invoyces, and Bills of Lading ſhall be allowed without Rate in the price of the Letters.

And likewiſe the Covers of Letters not exceeding $\frac{1}{4}$ of a Sheet of Paper ſent to *Marſeilles, Venice* or *Leghorn* to be ſent forward to *Turky* ſhall paſs without Rates.

The Days of ſending Letters to Foreign Parts are,

Monday.] To *France, Italy, Spain, Flanders, Germany, Sweden* and *Denmark.*

Tueſday.] To *Holland, Flanders, Sweden, Denmark, Germany,* and all parts of *England, Wales, Scotland* and *Ireland.*

Thurſday.] To *France, Spain, Italy,* and all parts of *England* and *Scotland.*

Fryday.] To the *Netherlands, Germany, Sweden, Denmark.*

Saturday.] To all parts of *England, Scotland* and *Ireland.*

The Days Foreign Males are Due at *London.*

Monday and *Friday.*] From *Holland* and *France.*

Monday and *Thurſday.*] From *Flanders.*

Monday, Wedneſday and *Friday.*] From *Ireland.*

Once a Fortnight from *Spain.*

CHAP.

CHAP. XIV.

A DICTIONARY, *or Alphabetical Explanation of moſt Difficult Terms commonly uſed in Merchandize and Trade.*

A.

Account of Sales.] An Account wherein the Sale of Goods is expreſſed.

Agai.] The difference in *Holland* or *Venice* of the Value of Currant Money and Bank-Notes, which in *Holland* is often 3 or 4 *per Cent* in favour of the Notes.

Apparel] (Of a Ship) the Sails.

Allotting of Goods.] Is when a Ships Cargo is divided into ſeveral parts, which are to be bought by divers perſons whoſe Names are wrote on as many pieces of Paper, which are applyed by an Indifferent Perſon to the ſeveral Lotts or Parcels; and by this means the Goods are divided without Partiality, for every Man has the parcel of Goods that the Lott with his Name on is appropriated to. *Vid. Inch of Candle.*

Arbitration.] Is when two Traders, *&c.* cannot agree about the Terms of ſome Contract, they each chooſe a Man to make an end of the Difference; and if theſe 2 cannot agree, the matter is uſually referred to a 3d perſon called an Umpire, to whoſe Deciſion both ſides are obliged to acquieſce.

Aſper.] A *Turkiſh* Coin about five Farthings in value.

Aſſignee.] One to whom a thing is lawfully aſſigned or made over.

Average.] Is 1ſt. The general Allowance made to a Maſter of a Ship of 1 *d.* or 2 *d.* in every Shilling Freight (as mentioned in the Bill of Lading;) or. 2. An allowance to him upon ſpecial occaſions when he ſuſtains Damage, which is equally divided upon all his Freight, and paid by each Merchant according to his Cargo. Or, 3. The Contribution that ſeveral Inſurors pay to make good the loſs of Goods caſt over-board which are by them inſured.

Aume.] (of Rheniſh Wine) is forty Gallons.

Arrear.] Behind-hand or owing.

Auln.] *Vid.* Exchange of Coin, of the Par of Exchange.

B.

Ballance an Accompt.] To make the Dr. and Creditor-ſides alike. See Chap. 10. §. 10.

Bale.]

Bale.] A Pack of Merchandize, but is of different quantity, as of

Cotton-Yarn-3 to 4 *C.*
Raw-Silk— 1 to 4 *C.*
Lockram or Dowlas 3, 3½ or 4 pieces.

Bagg.] An uncertain quantity, as of

Almonds about 3 *C.*
Anniſeeds —-3 to 4 *C.*
Pepper——1¼ to 3 *C.*
Goats-Hair —- 2 to 4 *C.*
Cotton-Yarn—2½ to 4½ *C*, *&c.*

Barter.] (or Commutation) To Truck or Change one Commodity for another.

Baratry.] (of the Maſter of a Ship, *&c.*) Is his cheating the Owners or Inſurers either by runing away with their Ship, or imbezeling their Goods, *&c.*

Basket.] An uncertain quantity, as of

Medlers 2 Buſhels.
Aſſafetida 20 to 50 lb weight.

Batman.] *Vid.* Exchange of Coin.

Bill of Parcels.] An account of the particular ſorts and prizes of Goods bought, given by the Seller to the Buyer.

Bill of Entry.] Is an account of the Goods entered at the Cuſtom-houſe, both Inward and Outward, in which is expreſſed the Merchant Exporting or Importing: The Quality of Goods and Sorts, and whither Tranſported or from whence.

Bill of Exchange.] Is a ſhort Writing, ordering the payment of a Summ of Money in one place, to any perſon aſſigned by the Remitter, in conſideration of the like value paid the Drawer in another place.

Bill of Lading.] An Inſtrument ſigned by the Maſter of a Ship, acknowledging the Receipt of the Merchant's Goods, and obliging himſelf to deliver the ſame in good condition at the place to which they are conſigned; of which there are uſually 3, 1ſt is given to the Merchant to keep, a 2d ſent to the Factor to whom the Goods are conſigned, and a 3d is kept by the Maſter of the Ship. *Vid.* Chap. 15.

Bill of Debt.] *See* Chap. 15.

Bill of Sale.] *See* Chap. 15.

Bind.] (of Eels) 10 Strike, each 25 Eels.

Bolt.] (of Canvas) 28 Ells.

Bottomage, or *Bottomree.*] Borrowing Money on a Ship, and lending Money on Bottomree, is to lend Money to the Maſter of a Ship to be paid with Intereſt at 40 or 50 *per Cent.* at the Ship's ſafe return, which if the Ship never do, the Lender never has his Money, and therefore is it the Intereſt is uſually ſo great.

Book of Rates.] Is a ſmall Book eſtabliſhed by Parliament, declaring at what Value, Goods that pay Poundage (or $\frac{1}{20}$ part of the Value) ſhall be reckoned, ſo that a 20th part of the Summ found in

In the Book of Rates is taken for the Duty payable by the Acts of Tunnage and Poundage.

Box.] An uncertain Quantity, as of Quickſilver 1 to 2 *C.*
Prunelloes 14 lb.
Rings for Keys 2 Groſs, *&c.*

Break Bulk.] Take out part of the Ships Lading or Cargo.

Brait] (Diamonds) Rough Diamonds.

Broker.] Buyers and Sellers of Goods for others, *&c. Vid.* 3 ſorts thereof Chap. 11 in the 2d Sect.

Brokage] (or Brokerage) The Wages or Proviſion given to them. *Vid.* Chap. 11. Sect. 2.

Brace.] *Vid.* Exchange of Coin, *Ar.* 3.

Bundle] Of Baſt Ropes, Harneſs Plates, Glovers Knives } 10
Hamborough-Yarn 20 Skeans.
Basket-Rods, 3 foot about at the Band.
Bulruſhes $\frac{1}{60}$ of a Load.

Burden.] (of Gadſteel) 180 lb.

Butlerage.] A ſmall Duty paid for Wine Imported by unfreemen.

Butt.] Of Sack = 2 Hogſheads.
Currants = 15 to 22 *C.*

C.

Cargo.] Freight, or the Ship's Lading.

Cagg or *Kegg.*] (of Sturgeon) 4 to 5 Gallon.

Cade.] of Red-herrings 500
Spratts —— 1000.

Caniſter.] of Tea, 75 to 1 *C.* weight.

Caſk.] (An uncertain Quantity as) of Sugar 8 to 11 *C.* weight,
Almonds about 3 *C.*

Caroteel.] of Cloves 4 to 5 *C.* wieght.
Currans 5 to 9 *C.*
Mace, about 3 *C.*
Nutmegs 6 to $7\frac{1}{2}$ *C*, *&c.*

Carage.] of Lime 64 Buſhels.

Caſe.] of *Normandy*-Glaſs 120 foot.
Recorders 5.

Charter Party.] An Inſtrument, or Writing drawn between a Merchant and Maſter of a Ship, containing the ſeveral Articles or Particulars of their Agreement. *Vid.* Cap. 15th. the Form of one.

Cheſt] (uncertain Quantity, as) of Sugar 10 to 15 *C.* weight.
Glaſs 2 to 300 foot.
Caſtle-Soap $2\frac{1}{2}$ to 3 *C.* weight.
Indigo $1\frac{1}{2}$ to 2 *C.* 5 ſcore to the *C. &c.*

Chique.] *Vid.* Exchange of Coin.

Chevisſaunce.] Compoſition between Debtor and Creditor.

Cloſſe.] *Vid.* Tare.

Cloſe an Accompt.] To cloſe an Accompt is to make an end or ſhut up an Accompt when you intend to write no more thereto, and is done by drawing a Line, *&c.*

Clough.] (or Draught) An Allowance of 2 pound at every 3 *C.* weight for the turn of the Scale,

that ſo the Commodity may hold out when retailed.

Coard.] of Wood, 4 foot long, 4 foot broad, and 8 foot deep.

Cockett.] A Cuſtom Warrant wrote on a ſmall piece of Parchment with the Seal of the Cuſtom-houſe given to a Merchant upon Entry of his Goods, certifying that the ſame are Cuſtomed.

Colour Strangers Goods.] Is when a Freeman or Denizen permits a Foreigner to enter Goods at the Cuſtom-houſe in his name, whereby the Foreigner, who in many caſes ſhould pay double Duty; by being entered in the Name of a Freeman pays but ſingle Duty, againſt which there are many ſevere Laws.

Collibis.] A Money-changer.

Commutation.] *Vid.* Barter.

Commiſſion of Bankrupt.] A Commiſſion from under the Great Seal of *England* directed to five or more Commiſſioners, to enquire into the Particulars of a Man's Circumſtances that is failed or broke (as we call it.) Theſe Commiſſioners are to act according to certain Statutes made in that behalf; as 34 and 35 *Hen.* 8. *c.* 4. 13 *Eliz. c.* 7. 1 *Jac.* 1. *c.* 15. 21 *Jac.* 1. *c.* 19. 14 *Car.* 2. *c.* 24. for Relief of Creditors.

Who may be Bankrupts.

All Perſons (by the Statutes above) uſing Trade by way of Bargain, Exchange, Barter, Cheviſſaunce, or otherwiſe in Groſs or Retail, or ſeeking Trade, of living by Buying or Selling, Subject, or Denizen, Scrivener, *&c.* that obtains Protection unleſs by Parliament that exhibited Bill againſt Creditor to take leſs than due, or to procure longer time of payment than was given at the time of the Original Contracts; or being indebted 100 *l.* or more, ſhall not pay or compound for the ſame within 6 Months after due, and the Debtor be arreſted for the ſame; or within 6 Months after an Original Writ ſued out to recover the ſaid Debt, and notice thereof given to him or left in Writing at his Dwelling-houſe or laſt place of abode; or being arreſted for Debt, ſhall after his Arreſt lie in Priſon two Months or more upon that or any other Arreſt or Detention in Priſon for Debt. Or being arreſted for 100 *l.* or more of juſt Debt ſhall at any time after ſuch Arreſt eſcape out of Priſon, or procure his Enlargement by putting in common or hired Bail, ſhall be accounted and adjudged a Bankrupt; except as by Stat. 14 *Car.* 2. *c.* 24. ſuch as have Stock in the *Eaſt-India*, or Royal Fiſhery, or *Guinea* Companies, who ſhall not be eſteemed Merchant or Trader.

Commiſſioners, how to act.

Commiſſioners in the Commiſſion of Bankrupt may (by the Majority) within 6 Months convey

vey all Lands, *&c.* to the uſe of the Creditors, unleſs remainer be in the King by his Gift; and they may ſell what the Bankrupt poſſeſſeth as owner tho' ſold before, *&c.*

Commiſſioners (as aforeſaid) may Authorize to break open Houſe, Shop, Trunk, *&c.* and ſeize.

Commiſſioners (as above) may examin Offenders on Interrogatories, and alſo the Wife of the Bankrupt.

Commiſſioners may aſſign Debts due, or to be due, and properly alter as if made to them.

Commiſſioners (as aforeſaid) may examin the Bankrupt on Oath, and on notice thrice at his Houſe, to be declared a Bankrupt, and on 5 Proclamations not appearing, to be apprehended.

Commiſſioners may proceed to Execution, on death after Commiſſion and before Diſtribution.

Commiſſioners being ſued may plead this General Iſſue and give the Statute in Evidence.

Commiſſioners may commit ſuch as refuſe to anſwer fully.

Commiſſioners to allow Charges to Witneſſes ſent for.

Commiſſioners to declare (on requeſt) the beſtowing of Bankrupts Money, *&c.*

Commiſſioners to ſee that Creditors be relieved *pro Rata* without regard to greater or leſſer Security.

Commiſſions of Bankrupt to be ſued forth within 5 Years after being a Bankrupt, and any Creditor, within 4 Months after the Commiſſion and until Diſtribution, may partake paying ſhare of Charges.

Commiſſion to a Factor.] *Vid.* Chap. 11. Sect. 2.

Commerce.] Trade of Buying and Selling.

Company.] (of Merchants) are either, 1. Companies in Joint-Stocks, as the *Morea* Company, *Eaſt-India* Company, and *Greenland* Company; or, 2. Regulated Companies, as the *Hamborough*, *Turky*,, *Eaſtland*, and *Muſcovy* Companies.

Compoſition.] By Compoſition in the way of Trade is meant, when a Debtor cannot pay his whole Debt, he agrees with the Perſon to whom he oweth Money to take part in lieu of the whole Debt, for which part he obtaineth a Receipt in full, as for the whole Debt; and this Money is ſaid to be paid by Compoſition.

Conſign Goods.] Is to preſent, deliver, or aſſign over; eſpecially Goods are ſaid to be conſigned to a Factor when they are ſent him by his Employer to be ſold, *&c.* or when a Factor ſendeth Goods to his Employer the Goods are ſaid to be conſigned to that Employer.

Contraband Goods] are ſuch as are prohibited Importation, as

Buttons, Thrown-Silk, Bone-Lace, Sword-Blades, *&c.*

Copes-Mate.] A Partner in Merchandizing.

Cordage.] The Tackle of a Ship.

Correſpondent.] When two Men hold a mutual Familiarity or Commerce by Letters, Invoyces, *&c.* they are Correſpondents.

Counterpoize.] To weigh one againſt another.

Crainage.] Money paid for the uſe of a Crain, by which bulky Goods are drawn up to Shore, out of Ship, Hoy, *&c.*

Creditor.] One that gives Credit or lendeth to another.

Cruizers.] Ships that ſail upon the Ocean with deſign to fight and take Enemies Ships.

Creek.] or Gulf, A crooked Shoar, where two Corners of Land extend themſelves into the Sea at ſome ſmall diſtance, between which a Veſſel may ſail.

Crown.] currant, *&c.* See Exchange.

Cuſtom.] Is a Duty paid by the Subject to Kings or Princes for protecting them in their Trade from Enemies, *&c.*

Cubit.] 18 Inches.

D.

Debtor.] One that is indebted to another.

Debenture.] They are owing; or an Arrear; or is moſt commonly uſed among Merchants, is the Allowance of Cuſtom paid Inward, which a Merchant draws back upon Exportation of that Commodity which was formerly Imported.

Demurrage.] An Allowance to the Maſter of a Ship by the Merchants for ſtaying in a Port longer than the time prefix'd for his departure. *Vid.* Freight of Ships, Chap. 11.

Dicker.] (Of Leather or Knives) 10; of Necklaces 10 Bundles, each Bundle 10 Necklaces.

Denier.] *See* the Table in Exchange.

Diſcount.] Set off, deduct or abate in conſideration of prompt payment which is uſually what the Intereſt comes to; as if I owe 100 *l.* and by Contract am to pay at the end of 6 Months, if I pay the ſame preſently I am to have the Intereſt of 100 *l.* for 6 Months diſcounted to me, *i. e.* I am but to pay 97 *l.* *See* Rebate.

Diſembarque.] Take Goods to Land out of a Ship or Veſſel.

Diſtrain.] Take away Goods for the payment of a Debt.

Ditto.] The ſame, or the ſaid.

Dividend.] (or *Divident*) In Arithmetick, the Number to be divided: But of a Company to make a Dividend is to aſſign how much of the Profits gained by a Companies Trading is proportioned or juſtly due to each Share contained

contained in the whole Joint-Stock, ſo that each Member by knowing how many Shares he has therein may know what he is to receive of the whole Gain.

Diary.] (or *Diurnal*) A Day-book, or an Accompt of every Days proceedings in Trade, *&c.*

Dock.] A place where Ships are built, refitted, or laid up.

Ducat and *Ducatoon.*] *See* Exchange of Coin.

Dovane.] The Cuſtom-houſe at *Lyons.*

Drapery.] Cloth-market, or that reſembling the Cloathing of a Picture.

Draught] (of a Ship) the Number of Feet under Water when Laden; alſo an Allowance in weighing: *Vid.* Clough.

Drugs.] Simples (of which the moſt part are dry) ſome whereof are Medicinal, as Jeſuits Bark, Gallingal, Allom, Rubarb, Cream of Tartar, *&c.* Others are Grocery Drugs, as Coffee, Tea, Tamerins, Anniſeeds, Cocoa-Nutts, Ginger, *&c.* almoſt innumerable.

Dina.] An *Eaſt-India* Coin about 30 Shillings Sterling.

Duty, or *Additional Duty.*] Money paid for Cuſtom of Goods, *&c.* to be apply'd to the King's own uſe, as that of Tunnage, Poundage, *&c.*

E.

Effects.] Merchants Goods or Concerns.

Embargo.] Is ſaid to be laid on Shipping, when by order of the Government none may come into the Nation or Port; ſometimes that none may go out, and ſometimes, that none may neither come in nor go out.

Empory.] An Exchange.

Enchiridion.] A Pocket-book or *Vade mecum.*

Endorſe.] To write on the backſide of any Inſtrument or Writing ſomething relating to the matter within; as to

Endorſe,] (a Note) Is to write on the backſide what part thereof is paid, alſo when and by whom, as uſed by Bankers, *&c.*

Endorſe.] (a Bill of Exchange) To order another to receive the Content of a Bill that is payable to me or my Order, which is done by writing my Name on the Backſide; as if *A* draws a Bill of 100 *l.* payable to *B.* or Order, which is accepted upon preſentation, but before the Bill is payable, *B.* has occaſion to pay 100 *l.* to *D*, ſo he writes his Name on the Back and delivers to (*D*) the Bill; and *D.* having occaſion to pay to *E.* 100 *l.* writes his Name on the Backſide and delivers the Bill to *E*, *&c.* So all they that have wrote their Names on the Backſide are Endorſers, and he that has the Bill laſt, if the Acceptor will not pay it may proſecute both all the Endorſers and the Drawer, and Acceptor, or any

ny of them by the Cuſtom of Merchants.

Enfranchis.] Encorporate into a Body or Society, as all our Corporations are.

Enhance.] To raiſe the price of any thing.

Epha.] A *Jewiſh* Meaſure of four Gallons and an half.

Eſcambio] A Licenſe to make over a Bill of Exchange to one beyond Sea.

Exaction.] Taking unlawfull Fees.

Exchangers.] Men that return Money beyond Sea.

Exchange Brokers.] Men that tell how the Exchange goes, and find thoſe that will Exchange: *Vid.* Factors. Chap. 11. §. 2.

Extortion] Taking more from another for Uſury, *&c.* than is juſtly or legally due.

F.

Factor.] A Merchant's Agent, *&c. Vid.* Chap. 11. §. 2.

Factorage.] The Wages that a Factor has: *Vid.* Chap. 11.

Faggot.] (of Steel) 120 pound weight.

Fangott] An uncertain Quantity, as of Raw-ſilk 1 to $2\frac{3}{4}$ *C.* Grogram and Mohair Yarn $1\frac{1}{2}$ *C.* to $2\frac{1}{2}$ *C.*

Fatt] An uncertain Quantity, as of Yarn 210 to 221 Bundles; Unbound Books $\frac{1}{3}$ a Maund; Wire 20 *C.* to 25 *C.* weight; Iſonglaſs $3\frac{1}{4}$ *C.* to 4 *C.* weight.

Florrin.] *See* Exchange of Coin.

Fodder] of Lead $19\frac{1}{2}$ *C.*

Fond or *Fund*] A Foundation or Stock in Money or Money worth.

Foreſtall.] to buy Goods before they come to Market with intent to advance their price.

Foundered] A Ship is ſo when it is filled with Water by a Storm.

Fraight.] or *Freight*, Is the Merchandize a Ship carries; and ſometimes the Money paid for ſuch Carriage is called *Freight.*

Frail.] of Raiſons, about 75 pounds.

Franchiſe.] Freedom or Privilege.

Friſt.] to ſell Goods at time or upon truſt.

Folio.] A Leaf, or 2 Pages of the Ledger, *&c.*

G.

Gabarage] That which *Iriſh* Goods are wrapped in.

Gabell.] Tribute or Cuſtom paid to Princes.

Gaffe.] An Iron Hook to pull great Fiſhes into a Ship.

Garble.] the Duſt and Droſs that is ſever'd from Spices, *&c.*

Garbling] Picking the worſt from the beſt of any Commodity.

Gare.] Very courſe Wool.

Gild.] A Company combined with leave of their Prince.

Gild-Merchant.] A Privilege whereby Merchants may hold Pleas of Land within themſelves.

Gilder.]

Gilder.] *See* Exchange of Coin.

Groſs.] 12 Dozen: *Vid.* the Table of Dozen at the beginning of this Treatiſe.

Groſs-weight.] the weight of the Goods or Merchandize, Duſt and Droſs mixed therewith; and of the Bag, Cheſt, Frail, or other thing in which they are contained, out of which Groſs-weight allowance is made for Tare and Trett.

H.

Hairs-breadth.] Is accounted among the *Jews* the forty eighth part of an Inch.

Hallage.] Toll or Duty paid for any Commodity brought to be vended in a Hall.

Hand-breadth] three Inches.

Harping-Irons.] Iron Inſtruments to ſtrike Whales and other great Fiſhes withall.

Harpiniers.] thoſe that ſtrike Fiſh with the Harping-Irons.

Hin.] A *Jewiſh* Meaſure about 3 Quarts.

Hogſhead.] 63 Gal. *Vid.* Ch. 1.

I.

Jarr.] (of Oyl) 18 to 26 Gal. Green-ginger about 100 pounds weight.

Immunity.] Privilege or Freedom.

Importuous.] without Port or Haven.

Import Goods.] to bring them into a Port.

Impoſt.] (of Goods) the Tax or Cuſtom paid for Merchandize to be apply'd to the Subjects uſe as a Duty is to that of the King.

Indorſe.] *Vid.* Endorſe.

Ingenio.] The Sugar-houſe at *Barbadoes.*

Inland Town] One that ſtands far in the Land to which no Veſſel can ſail.

Inland-Trade.] Trade that is managed wholly in one Country.

Inland Bills.] Bills payable in the ſame Land in which they are drawn.

Inch of Candle.] Goods are ſold by Inch of Candle, when a Merchant or Company of Merchants (as the *Eaſt-India* Company, *&c.*) having a Cargo of Foreign Goods arrived, are minded to make a ſpeedy ſale thereof. In this Caſe notice is uſually given upon the Exchange by Writing, and elſewhere, when the Sale thereof begins; againſt which time the Goods are divided into ſeveral Parcells called Lotts, and Papers printed of the Quantity of each and of the Conditions of Sale, as that none ſhall bid leſs than a certain Summ, more than another has bid before, *&c.* during which time of bidding a ſmall piece (about an Inch) of Wax-Candle is burning, and the laſt bidder when the Candle goes out has the Lott or Parcell expoſed to ſale. And if any Difference ariſe, as it often happens in a good

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good Lott, that 4 or 5 or more bid together, in this Caſe the Lott is put up again till the true Buyer can be diſcovered in the Judgment of ſtanders by appointed for that purpoſe, which Buyer is bound to ſtand to the Bargain, and to take the Lott whether good or bad at the Rate he bought it by being the laſt Bidder.

Interlopers] Thoſe that hinder or intercept the Trade of a Company legally eſtabliſhed, by the Trading in the ſame way.

Inventory.] A Catalogue, or a particular Eſtimation of Goods, *&c.*

Invoyce.] An Accompt of Goods, Cuſtom, Proviſion, Charges, *&c.* ſent from a Perſon to his Correſpondent in another Land.

Invoyce-Tare.] The Tare (or weight of the Cask, Bagg, *&c.* in which Goods are put) mentioned in the Invoyce or Factory.

Journal.] A Book containing a daily Accompt of any Buſineſs, or a Merchant's Journal, is a Tranſcript of the Waſte-book, which in this Book is made Debtor: *Vide* Chap. 10.

Inſurer.] (of Ships, Cargo, *&c.*) One who for a Summ of Money paid in hand to him by a Merchant, obliges himſelf to make good ſuch Ship, *&c.* ſo far as is the value of that for which he hath receiv'd a *Premium*, in caſe of Loſs by Storm, Pyrates, *&c.* as mentioned in the Policy. Chap. 15.

Ingott.] (of Silver or Gold) an uncertain quantity of Bullion, or melted Gold or Silver.

K.

Key] A place to Land or Ship off Goods at, the number of which are ſettled by the Parliament or appointed by the King: Thoſe at preſent belonging to the Port of *London*, are *Gally-Key*, *Brewers Key*, *Cheſters Key*, *Wool-Dock*, *Cuſtom-houſe Key* (except the Stone Stairs on the *Weſt* ſide thereof) *Porters Key*, *Bear Key*, *Sabs Dock* (excluding the Stairs there) *Wiggins Key*, *Youngs Key*, *Ralphs Key*, *Dice Key* (except the Stairs there) *Smarts Key*, *Somers Key* (except the Stairs there) *Lyon Key*, *Hammons Key*, *Bottolph Wharfe*, *Gaunts Key* (except the Stairs on the *Eaſt* ſide) *Cocks Key*, and *Freſh Wharfe*, beſides other places for landing Fiſh, Salt and Proviſion; as *Billings-gate*, *Bridge-houſe* in *Southwark*, &c.

Knitleidg] The Ballaſt of a Ship.

Keel.] The loweſt Timber or bottom of a Ship.

Kintall.] *Vide* Exchange of Coin, of the Par of Exchange, Gen. Head 3.

Lare-

L.

Lareboard Port.] The left ſide of a Ship.

Laſtage.] The Ballaſt of a Ship.

Laſt.] Of Aſhes for Soap, Cod-fiſh, White-Herrings, Meal, Pitch and Tarr. } 12 Barrels.

Of Red-Herrings = 20 Cades; Stock-fiſh = 1000; of Dogſtones = 3 pair; Flax or Feathers 17 C. of Gunpowder 24 Barrels (or 2400 pound weight: Of Leather 20 Dicker; of Hydes = 12 Dozen; of Corn or Rape-ſeed = 10 Quarters; and of Wool 12 Sacks.

Leakage.] An allowance to the Merchant (for Liquids) of 12 *per Cent.* And to Brewers 3 in 23 Barrels of Beer, and 2 in 22 Barrels of Ale.

Leaky.] A Veſſel is ſo, when it lets out any of the Liquor therein contained; Or a Ship is ſo when it lets Water come in.

Ledger.] A Book of Accompts, wherein every Man's Accompt, and alſo that of every ſort of Goods bought and ſold by a Merchant are placed each by themſelves: *See* Chap. 10. §. 1. and 6.

Letter of Credit] Is a Letter from one Correſpondent to another to requeſt his Crediting the Bearer thereof with a certain Summ of Money therein mentioned: In which Lerter it is neceſſary ſome ſpecial token ſhould be mentioned, the better thereby to ſecure both ſides from frauds that might be practiſed in procuring ſham Letters of Credit. *Vide* Chap. 15.

Letter of Advice.] A Letter from one Correſpondent to another, adviſing him what Bills he has drawn on him, *&c. Vide* The Duty of a Factor, Chap. 11.

Letters of Mart.] Letters under the Privy-Seal granted to the King's Subjects with whom Truce is broken upon the Sea, impowring them to take by force of Arms that which was formerly taken from them contrary to the Laws of Marque: *Vide* Stat. 4 *Hen.* 5.

Letters of Licenſe.] A Letter of Licenſe is an Inſtrument or Writing granted to a Man that has failed or broke, ſealed and ſigned by his Creditors, which Letter does uſually give a longer time for payment, ſo that the Debtor having this Letter of Licenſe can go about his Buſineſs without fearing an Arreſt. *See* the Form of one, Chap. 15.

Lombard.] A Bank for Uſury, ſo called from the Inhabitants in *Lombard* in *Italy*, who are much concerned in Uſury.

Loan.] Intereſt of Money.

Lott of Goods.] *See* (Inch of Candle) and (Allotting of Goods.)

Livre.] *Vide* the Table in Exchange of Coin.

M.

Manifeſt.] A Manifeſt is a Tranſcript of a Maſter of a Ship's Cargo, ſhewing what is due to him for Freight from each perſon to whom the Goods in his Ship belong.

Mamooda.] An *Eaſt-India* Coin value our Shilling.

Manch] Of Silver, is 60 Shekels or 7*l.* 10*s.* 00*d.* of Gold 100 Shekels or 75*l.* Sterling.

Manuel Goods.] Thoſe whereof preſent profit may be made.

Manufacture.] A Commodity procuced by the work of the Hand, as Cloth, Bays, Serge, Hats, *&c.* but Wool is no Manufacture becauſe Nature produceth it, but whatſoever Commodities are made by Art of things naturally produced are properly called Manufactures.

Maritime.] Belonging to the Sea.

Mark of Goods.] A diſtinguiſhing Characteriſtick, whereby every Merchant or Trader knows his own Goods and the Prizes thereof, which is ſometimes done by Letters of the Alphabet, ſometimes by Numbers, and ſometimes by other Characters, and particularly the Mark upon the Bales, Cheſts, Bundles, *&c.* of Partners is for the moſt part as in the Bill of Lading, Chap. 15.

Maund.] (of unbound Books is) 8 Bales, each 100*l.* weight or 2 Fats.

Maſt.] (of Amber) 2½ pounds weight.

Meaſe.] Five hundred Herrings.

Moiety.] One half of any things.

Monopoly.] The buying of any Commodity up, ſo that none can ſell or gain by it but one perſon, or Partners in Company.

Mortgage.] A Pawn of Lands, Goods, *&c.* as a Credit or Depoſitum whereon to borrow Money; which Goods, *&c.* to be the Lenders, if the Money is not paid back at the time prefix'd.

Mount.] (Of Plaiſter of Paris) 3000 pound weight.

Mulcts.] Fines which a Company have power to lay on Ships or Goods belonging to their Members, to raiſe Money for the uſe of ſuch Company for maintenance of Conſuls, or to make Preſents to Foreign Princes, *&c.*

Murrage.] Toll taken of every laden Cart or Horſe toward the repair of the Walls of a Town or City.

N.

Napery.] Linnen-Cloth or Table Linnen.

Naval.] Belonging to the Sea.

Navy.] A Fleet of Ships.

Naufrage.] Shipwreck.

Navigable.] Sailable, or which may be ſailed in.

Navigation.] The Art of Sailing, as alſo the manner of Trading

ding by Sea called Merchandizing.

Naulage.] The Freight or Summ paid for carrying Goods by Sea.

Neat-weight.] The weight of the pure Commodity alone, without the Cask, Bag, *&c.* And (in Commodities that have any) when the Duſt, Droſs, *&c.* is taken out by Garbling, *&c.*

Negotious.] Full of Buſineſs.

Neſt] (of Cheſts or Coffers) 3.

Notary-Publick] A kind of Scrivener, who publickly takes notice of Contracts, Drafts, Proteſts, Foreign Bills, *&c.*

Note for Money.] A ſhort Writing, whereby one Man promiſeth to pay another a Summ of Money under his Hand: *Vide* Chap. 15.

Noteing a Foreign Bill.] A Publick Notary's going to be a Witneſs or take notice that a Merchant will not accept or pay it.

O.

Obligor.] He that enters into Bond.

Obligee.] He to whom a Bond is made.

Oke.] A *Turkiſh* weight: *See* Exchange of Coin, *Turky* weight.

Okham.] Tow or Flax to drive into the Seams of a Ship.

Ork.] A Butt for Figgs or Wine.

Omer.] A *Jewiſh* Meaſure of $3\frac{1}{2}$ Pints.

Orgall.] The Lees of Wine dryed uſed by Dyers to make Cloth take Colour.

Orlap.] Any Deck of a Ship but the firſt.

Overſet.] When the Ship is overturned.

Ouſter le Mer.] An excuſe for not appearing in Court by being beyond Sea, *&c. See* 4 *H.* 7.

Owlers.] They that carry Sheeps-wool or any prohibited Goods in the Night to the Seaſide in order to Ship off contrary to Law.

P.

Pack of Wool.] 17 Stone and 2 pounds, or 240 pound weight.

Pace.] Five Foot.

Packer.] He that makes up Barrels of Herrings, *&c. See* 15 *Car.* 2.

Pagod.] A piece of *Indian* Gold worth about 10 *s.* Sterling.

Palingman] A Merchant Denizen born.

Pariation] Evenneſs of Accompts.

Pancart.] A Paper of the Rates and Cuſtoms due to the *French* King.

Par of Exchange.] *Vide* Exchange of Coin.

Pawn-Brokers.] They that lend Money upon any ſort of Goods or Commodity.

Paſſagio] A Writ for the Keepers of a Port to grant paſſage over Sea.

Pattacoon.] A *Spaniſh* piece of Money about 4 *s.* 8 *d.* Sterling.

Partart.] A *Dutch* Stiver 5 of which make 6 *d.* Sterling.

Peſage.] Cuſtom for weighing.

Peſterable-wares.] Thoſe that are troubleſome and take much room up in a Ship.

Petty-Tally.] A Competency of Proviſion in a Ship.

Piccage.] Money paid at Fairs or Marts for breaking the Ground to ſet up Booths.

Piece of Eight.] 4 ſorts: *See* Par of Exchange.

Pocket of Wool.] Part of a Pack, about half.

Policy of Inſurance.] An Inſtrument or Writing given by the Inſuror of Ships, Goods, Houſes, *&c.* to Merchants, *&c.* to oblige themſelves to pay the Sum inſured in caſe of Loſs: *Vide* Chap. 15.

Poop.] The uppermoſt part a Stern, the Ship's Hull.

Portgreve.] The Governour of a Port-Town.

Port-Sale.] A publick ſale of things to them that bid moſt.

Poundage.] A Duty granted the King of *England* of 12 *d.* for every 20 *s.* value of all Goods Exported or Imported, except ſuch as pay Tunnage, and Bullion, and Diamonds, and a few others.

Poſt an Accompt.] Is to put an Accompt foward from one Book to another, as to Tranſcribe what is written in the Waſte-Book into the Journal, *&c. Vide* Chap. 10. Sect. 8.

Pre-emption.] The firſt buying of any thing.

Premium.] A Reward, or the Money given for Inſuring Ships, Goods, Houſes, *&c.*

Price Currant.] A weekly Accompt publiſhed in *London* of the Currant value of moſt Commodities.

Prizage Wine, &c.] Such as is taken from Enemies by way of Prize.

Prize-Office.] An Office appointed for the Sale of Ships taken Prize.

Primage] A ſmall but cuſtomary Allowance to the Maſter of a Ship for his Sailors, paid at the Lading of a Ship.

Prohibited Goods.] Such Goods as are not to be Exported or Imported.

Prompt Payment.] Preſent Payment.

Proteſt of a Bill of Exchange.] *See* Chap. 11. Sect. 1. and the Form of one, Chap. 15.

Proviſion.] The Wages due to a Factor: *See* Chap. 11. §. 2.

Publick-Notary.] *See* Notary-Publick.

Puncheon.] Of Wine=84 Gallons; of Pruons 10 to 12 hundred weight.

Q.

Quarter-Deck.] Over the Steerage as far as the Captain's Cabbin.

Quarter-Wind.] When all the Sails may draw together.

Rack-

Rack-Vintage.] A ſecond Voyage of our Merchants into *France* for Rack-Wine.

Rack-Wines.] Wine cleanſed and drawn from the Lees.

Ryall.] A *Spaniſh* piece of Money about $6\frac{3}{4}d.$ Sterling.

Ream.] of Paper, 20 Quires.

Rebate.] An abating what the Intereſt comes to, in conſideration of prompt payment and in ſtrictneſs Rebate ought to be allowed for prompt payment of the Intereſt, but that is not often regarded. *See* Diſcount.

Reed.] A *Jewiſh* Meaſure, 3 Yards 3 Inches.

Regrator.] One that buyeth and ſelleth again in the ſame Market, or within four Miles thereof.

Remancipate.] To ſell or return a Commodity to him that firſt ſold it.

Rialto.] A Marble Bridge at *Venice* where the Merchants meet.

Rottello.] A *Turkiſh* weight: *See* Exchange, the Equation of weight.

Rupee.] An *Eaſt-India* Coin worth 2 *s.* 6 *d.* Sterling.

Rundlett.] An uncertain Quantity of Liquids from 3 to 20 Gallon.

Rigging.] The Ropes, *&c.* belonging to the Yard and Maſts of a Ship.

Rix Dollar.] *See* the Table in the Par of Exchange.

Roll.] (Of Parchment) 60 Skins.

Ree.] A *Portugal* Coin: *See* the Table in Exchange.

S.

Sack] Of Cotton-Wool $1\frac{1}{2}$ *C.* to 4 *C.* of Sheeps-Wool 26 Stone of 14 *l.* to the Stone, but in *Scotland* 24 Stone of 16 *l.* each Stone.

Salvage.] An Allowance made both by the Statute and Civil Laws to ſuch as ſave Ships or Goods from danger of Seas, Enemies, *&c.* *See* a late Statute made 4 and 5 *W. M. c.* 25.

Sarpliar.] A piece of Canvas to wrap Wares in.

Seam] Of Glaſs, 24 Stone, each 5 pounds weight; of Malt, 8 Buſhel.

Seron.] Of Barillia 3 *C.* Almonds 2 *C.* Anniſeeds 3 to 4 *C.* and Caſtle-ſoap $2\frac{1}{2}$ *C.* to $3\frac{1}{4}$ *C.*

Shock.] (of Soap-boxes, Canes, Wood-Trays, *&c.*) 60.

Skipper.] A Seaman.

Scavage.] A Duty formerly laid on Merchant Strangers Goods Imported or offered to Sale.

Seignorage.] An Allowance to the King or Prince for Gold and Silver brought in the Maſs to be Coined.

Seiſure.] To make ſeiſure is to ſeiſe prohibited Goods, *&c.* *See* 14 *Car.* 2 Ch. 11. Rev. 6. *W. M.* c. 1.

Semidole.] Half a Tun of Wine or 1 Pipe.

Seraph.] A *Turkiſh* Gold Coin about 5 *s.* Sterling.

Sound.]

Sound.] To ſound (at Sea) is to make tryal how many Fathom the Sea is in depth, which is done by a ſounding Line (which is 20 to 200 Foot long marked at 3, 10 and 15 Foot with Leather, and at 5 with white and 7 with red Rags) and a ſounding Lead which is about 7 pound weight.

Sort.] Of Ballances is 4 Dozen.

Smuglers.] Thoſe that conceal prohibited Goods, againſt whom there are many ſevere Statutes, as 14 *Car.* 2. Chap. 11. Rev. 6. *W. M.* c. 1. *&c.*

Span] 9 Inches.

Staple.] A publick Mart by 27 *Edw.* 3. *&c.* ſettled and appointed to be kept conſtantly at *York*, *Lincoln*, *Newcaſtle upon Tine*, *Norwich*, *Weſtminſter*, *Canterbury*, *Chicheſter*, *Wincheſter*, *Exeter* and *Briſtow*, to which places Merchants and Traders were to carry to ſell their

Staple-Goods.] Wool, Leather, Lead and Wool-fells; tho' now by Staple-Goods is generally meant any good vendible Commodity not eaſily ſubject to periſh.

Stack] (of Wood) 3 Foot long, 3 Foot broad, and 12 Foot high.

Stand.] (of *Burgundy* Pitch) 2½ *C.* to 3 *C.* weight.

Stare-board.] The Right-ſide of a Ship.

Staticks.] The Science of Weights and Meaſures.

Statute-Merchant.] (or Statute Staple) Bonds made and acknowledged as directed by the Statutes.

Storage.] Ware-houſe-room.

Stelionate.] Deceit in Merchandize.

Subhaſtation.] Selling Confiſcate Goods under a Spear.

Subſcribe.] To underwrite any Inſtrument or Writing.

Sultanin] A *Turkiſh* piece of Gold about 8*s* ſterling.

Supergargo.] One employed by the Owners of a Ship to go a Voyage to overſee the Cargo, and to diſpoſe of it out and in to the beſt advantage of the Owners, for which ſervice he is allowed good Proviſion, becauſe the Truſt impoſed on him is very conſiderable.

Surcharge.] Charge upon Charge, or the Charge in any thing which is over and above that which is juſt and right.

Suttle-weight.] *See* Ch. 9. §. 1.

T.

Tackle.] (of a Ship) The Ropes, *&c.*

Tally] A cleft piece of Wood given by the Officers of the Exchequer to ſuch as pay Money thereinto, upon Loans, *&c.*

Tally-man.] One that ſells all manner of Houſhold Goods, Linnen, Woollen, *&c.* to be paid by ſo much a Week, in which method he uſually extorts a prodigious advantage from the Buyer.

Tal-

Tallent.] (in weight) 62 pounds Troy.

Tarpaulin.] A tarred Canvas laid on the Deck of a Ship to keep the Weather out.

Tellers.] Four Officers that receive the Money in the Exchequer.

Tydes-men] Officers attending Ships untill the Cuſtom be paid.

Tunnage.] Cuſtom granted the King of *England* for Liquids Imported or Exported: *See* the 1ſt granted 43 *Edw* 3.

Tranſier.] A Cuſtom-houſe Warrant or Let-paſs.

Tranſport.] To carry over-Sea.

Tronage.] Cuſtom for weighing Wool.

Tubb.] Of Tea, about 60 lb; Camphire 56 to 86 lb; Vermillion 3 to 4 *C.*

Timber.] Of Furrs 40 Skins.

Tun] Of Timber 40 ſolid Foot.

V.

Villein.] (Fleece of Wool) that which is ſhorn from a ſcabbed Sheep.

Vintage] Grape-gathering.

Uncuſtomed Goods.] Thoſe that have not paid Cuſtom. *Vide* 14 *Car.* 2 c. 11. Rev. 6. *W. M* c 1.

Uſance. Is here in *England* for the moſt part reckoned a Calendar Month, as from *January* the 10th to *Feb.* the 10th; double Uſance 2 ſuch Months, *&c. Vide* Chap. 11. §. 1.

W.

Waga.] A Weigh, or 256 lb.

Water-born.] Juſt a float.

Wharfage.] The Fee paid for Landing or unlading Goods at a Wharfe.

Wool-drivers] Thoſe that buy Wool of Sheep-maſters and carry it on Horſeback to ſell.

Wool-winders.] They that are ſworn truly to bundle up Fleeces between the Buyer and Seller.

Wreck.] The periſhing of a Ship and every perſon in it; what part is caſt aſhore belongs to the King, but if any Creature in the Ship eſcape, the Goods are ſtill the Owners, if claimed within a 12 Month and a Day.

Weigh.] Of Glaſs = 60 Bunches; of Salt or Corn = 40 Buſhels.

Y.

Yard.] (of a Ship) The Timber croſs the Maſt, at which the Sails hang; and the Main-Yard is $\frac{2}{3}$ of the Keels length.

Z.

Zacca.] The Mint at *Venice.*

Zachine.] A Gold Coin worth about 7 *s.* 6 *d.* Sterling.

CHAP.

CHAP. XV.

Contains the Form of ſuch Writings as are commonly uſed by Merchants and Traders.

I Have not incerted the following Preſidents with deſign that the Merchant, *&c.* ſhould be at the trouble of writing them over upon occaſion, which would be too tedious, but chiefly that young Merchants and Traders by reading them, may be well acquainted with the Nature thereof, and may thereby know how to fill up Blank Bills of Lading, Policies of Inſurance, Charter Parties, *&c.* tho' there are ſome others of which there are no Blanks ready printed, as Bill of Exchange, Notes, Invoyces, Letters of Credit, Letters of Licenſe, *&c.* which they that have occaſion muſt write over, and for their Service a Form or Method may not be uſeleſs, eſpecially to ſuch as have not ſeen much of the Affairs of the World; and for theſe Reaſons I have in Alphabetical Order given an Example of all the moſt material Writings ſubſervient to Trade that I could think of.

§. 1. *An Arbitration Bond with a Condition thereto annexed.*

This Inſtrument is very uſefull among Merchants, who upon any ſlight occaſion do not uſually go to Law, but referr the Matter to be decided by two knowing Men; or if they two cannot agree it is often determined by an Umpire, or one Man, choſen indifferently by both Parties; to ſtand to whoſe Award, final Determination, or Umpirage, the diſagreeing Parties commonly give each other mutual Bonds

In this form.

Note, That the words variable, I have included in a Paratheſis, between 2 Crotchets, thus [ ].

NOverint univerſi per preſentes [*me Benjaminum Bidfare de London in Com' Middleſex, Mercator*] *Teneri & firmiter Obligari* [*Willielmo Wellmeant de London predic' Mercator, in Centum*] *Libris bonæ & legalis Monetæ Angliæ ſolvend' eidem* [*Willielm. Wellmeant,*] *aut ſuo certo Aturnat. Executor. vel Adminiſtrator. ſuis: Ad quam quidem ſolutionem bene & fideliter faciend. Obligo me Heredes, Executores & Adminiſtratores meos firmiter*

firmiter per preſentes ſigillo meo ſigillat dat [*primo die Maii*] *Anno Regni Dom. Noſt. Willielmi Tertii, Dei gratia Angliæ, Scotiæ, Franciæ & Hiberniæ Regis fidei Defenſoris,* &c. [*Nono*] *Annoque Dom.* 1697.

The Condition of this Obligation is ſuch, That if the above bounden [*Benjamin Bidfare* of *London*, Merchant,] his Heirs, Executors, and Adminiſtrators for his and their Parts and behalfs, do in all things well and truly ſtand to, obey, abide by, perform, fulfill and keep the Award, Order, Arbitrament, final End and Determination of [*Anthony Aimwell* and *Michael Makepeace* of *London*, Merchants] Arbitrators indifferently named, elected and choſen, as well on the part and behalf of the abve bounden [*Benjamin Bidfare*] as of the above-named [*William Wellmeant*] to arbitrate, award, order, judge and determine of and concerning all and all manner of Action and Actions, Cauſe and Cauſes of Actions, Suits, Bills, Bonds, Specialties, Judgments, Executions, Extents, Quarrels, Controverſies, Treſpaſſes, Damages and Demands whatſoever, at any time or times heretofore had, made, moved, brought, commenced, ſued, proſecuted, done, ſuffered, committed or depending by or between the ſaid Parties, ſo as the ſaid Award be made [and given up in Writing under their Hands and Seals ready to be delivered to the ſaid Parties] on or before the [Fourth Day of *June* next enſuing the Date abovementioned.] But if the ſaid Arbitrators do not make ſuch their Award of and concerning the Premiſes by the time aforeſaid; That then, if the ſaid [*Benjamin Bidfare*] his Heirs, Executors, and Adminiſtrators, for his and their part and behalf, do in all things well and truly ſtand to, obey, abide, perform, fulfill and keep the Award, Order, Arbitrament, Umpirage, final End and Determination of [*Ferdinando Finiſhall* of *London*, Eſquire, Umpire indifferently choſen] between the ſaid Parties of and concerning the Premiſes, ſo as the ſaid Umpire do make his Award or Umpirage of and concerning the Premiſes, and deliver the ſame in Writing under his Hand and Seal to the ſaid Parties on or before the [fourteenth Day of *June* next enſuing the Date above-ſaid.] Then this Obligation to be void, or elſe to remain in full force, ſtrength and virtue.

Sealed and Delivered (being ſtamp'd according to Act of Parliament) *in the preſence of*
A. B.
C. D.

Benj. Bidfare.

But note, that if there is to be no Umpire you muſt omit the latter end, from [But if the ſaid Arbitrators, *&c.*]

§. 2. *A Bill of Debt.*

Know all Men by theſe preſents, That I *Nicholas Needem* of *London*, Draper, do owe and am indebted unto *Chriſtopher Creditmuch* of *London*, Merchant, the Summ of Eight hundred fifty two pounds of lawfull *Engliſh* Coin, which ſaid Summ I promiſe to pay unto the ſaid *Chriſtopher Creditmuch*, his Executors, Adminiſtrators or Aſſigns, on or before the Twenty fourth Day of *June* next enſuing the Date hereof. Witneſs my Hand and Seal the firſt Day of *January*, 1696.

Sealed and Delivered in the preſence of
Barthol. Bookall,
Peter Pettycaſh.

Nich. Needem:

But if the Bill of Debt is for Money borrowed it may run thus;

REceiv'd and Borrow'd of *Chriſtopher Creditmuch* of *London*, Merchant, Eight hundred fifty two Pounds, which I do hereby promiſe to pay at demand; witneſs my Hand,

852 *l.* 00 00 *Nichol. Needem.*

§. 3. *An Inland Bill of Exchange.*

Norwich, June 1. 1697.

AT four Days ſight pay unto Mr. *Miles Moneylove*, or his Order, One hundred thirty two Pounds, value receiv'd of *Edmund Eaſie*, and place it to Accompt as *per* Advice of

To Mr. Paul Punctual
at the Ship *in* Grace-Church-ſtreet, London.

Your Humble Servant,
David Draw-well.

§. 4. *A Foreign Bill.*

London, April 10. 1697, for 1000 ps. 8, at 53⅞ *d.* Sterl. *per* ps, 8.

AT Three Uſance pay this my firſt Bill of Exchange unto Mr. *Peter Peterary*, or his Order, One thouſand pieces of Eight *Mexico* Exchange, at Fifty three pence ⅞ Sterling *per* piece of Eight, for the Value receiv'd of *Andreas Amantretia*, and paſs it to Accompt as *per* Advice of

To Mr. Peter Paygood
Merchant in Leghorn.

Your Real Friend,
Edm. Engliſh.

(Vid. Ch. 11. §. 1.)

§. 5. *The*

§. 5. *The Form of a Bill of Lading.*

(*Note, that the words between* [ ] *are Blanks filled up.*)

SHipped by the Grace of God in good order and well conditioned, by [*Francis Fraightwell* of *London*, Merchant, and Company] in and upon the good Ship called [the *Streights-Merchant* of *Dover*] whereof is Master, under God, for this present Voyage, [*Samuel Sailtrue* of *London* Mariner] and now riding at Anchor [in the Port of *London*,] and by God's Grace bound for [*Leghorn* in *Italy*;] to say, [One Bale of Woollen-Cloth, one Cask of Tinn in Blocks, and one Cask of Refin'd Sugar; Contents, *&c.* as *per* Invoyce] being Marked and Numbred as in the Margent, and are to be delivered in the like good order and well conditioned at the aforesaid Port of [*Leghorn*] (the danger of the Sea only excepted) unto [Mr. *David Dealfair* Merchant there,] or to his Assigns, he or they paying Fraight for the said Goods, [two Lyon Dollars *per* hundred weight for the Tinn and Copperas, and one Lyon Dollar and a half *per* Cloth] with Primage and Average accustomed. In witness whereof the Master or Purser of the said Ship hath affirmed to [Three] Bills of Lading all of this Tenor and Date, one of which [Three] Bills being accomplished the other [Two] to stand void. And so God send the good Ship to her desired Port in safety. *Amen.*

N°. 1. 2. 3.

Dated in [London *the fourth day of* May, Anno Dom. 1697.]

Insides and Contents unknown to *Samuel Sailtrue.*

§. 6. *The Form of a Bill of Parcells for Goods bought at time.*

Mr. *Kendrick Keeptouch*, *London, April* 4. 1697.

BOught of *Phineas Faith* 4 Bales of *French* Cloth, to pay at $\frac{6}{mo.}$ as follows;

		l.	*s.*	*d.*		*l.*	*s.*	*d.*
N°. 4	*qt.* 3½ pieces Dowlas at	3	: 06	: 0	each	11	: 11	: 00
7	—4 pieces *Ditto* — at	4	: 10	: 0	——	18	: 00	: 00
8	—3 pieces *Ditto* — at	4	: 15	: 0	——	14	: 05	: 00
14	—3 ps. Lockrams — at	2	: 15	: 6	——	08	: 06	: 06
	13½ pieces in all, at				——	52	: 02	: 06

Another Bill of Parcells.

Mr. *Peter Paydown*, and Comp. *London, April* 10. 1697.

BOught of *Titus Tradewell* for present Money, Twelve Sacks of Cotton, *viz.*

	C. q. lb.		*C. q. lb.*
N°. 1	*qt.* 3:1:17	N°. 7	2:3:16
2	2:2:10	12	3:1:10
5	2:3:05	20	3:0:27
6	3:0:23	21	2:3:04
	11:3:27		12:1:01
	12:1:01		
	24:1:00	Total Gross.	
	00:3:13	Tare.	
	23:1:15	Suttle 2619 *l.*	
		Tret—100½ *l.*	
	C. q. lb.	Net 2518½ at 14 *d. per lb.*	146:18:3
More, N°. 30	2:3:12		
31	3:0:10	Damag'd.	
32	3:0:26		
40	2:2:16		
	12:0:08	Gross.	
	0:1:20	Tare.	
	11:2:16	Suttle 1304 *l.*	
		Tret—·50	
		Net—1254 at 4 *d. per lb.*	20:16:00
			167:14:03

S. 7. The

§. 7. *The Form of a Bill of Entry at the Cuſtom-houſe.*

London, May 3. 1697.

IN the *Streights-Merchant*, Capt. *Sam. Sailtrue* Maſter, for *Leghorn*.

Francis Fraightwell, and Comp. Merchants.

N°. 1—1 Bale *qt.* 9 ſhort Cloths (Wrappers deducted--
2—1 Cask *qt.* Nett 14 *C.* 3 *q.* 00 *l.* of Tinn in Blocks--
3—1 Cheſt *qt.* Nett 6 *C.* 1 *q.* 24 *l.* of Sugar doub. Ref.

§. 8. *The Form of a Bill of Sale.*

The moſt uſual Bill of Sale among Traders is, when a perſon wanting a Sum of Money depoſits Goods as a Security to the Lender, to whom he gives a Bill of Sale, impouring the Lender to ſell the ſaid Goods in caſe the Summ borrowed is not repaid, with Intereſt, at a time prefixed.

It runs thus;

Know all Men by theſe Preſents, That I *Lazarus Lackcaſh* of *Norwich* in the County of *Norfolk* Goldſmith, for and in conſideration of Fifty Pounds of lawfull Money of *England* to me in hand paid by *Dives Doubledun* of *London* Eſquire, the Receipt whereof I do hereby acknowledge, have bargained, ſold and delivered, and by theſe preſents, according to due form of Law, do Bargain, Sell, and Deliver unto the ſaid *Dives Doubledun* Sixteen Grains or four Caracts of Oriental Pearl, Nine Grains of brait Diamonds, one Silver Tea-pot, weight 20 Ounces, one Silver Salver weight 10 Ounces, two ſetts of Silver Caſters weight 30 Ounces, and Ten Cornelian Rings, ſealed up by Conſent with my Seal, *To Have and to Hold* the ſaid bargained Premiſes unto the ſaid *Dives Doubledun*, his Executors, Adminiſtrators and Aſſigns for ever. And I the ſaid *Lazarus Lackcaſh*, for my ſelf, my Executors and Adminiſtrators, the ſaid bargained Premiſes unto the ſaid *Dives Doubledun*, his Executors, Adminiſtrators and Aſſigns againſt all Perſons, ſhall and will warrant and for ever defend by theſe Preſents, *Provided* nevertheleſs, That if I the ſaid *Lazarus Lackcaſh*, my Executors, Adminiſtrators and Aſſigns, or any of us, do and ſhall well and truly pay or cauſe to be paid unto the ſaid *Dives Doubledun*, his Executors, Adminiſtrators or Aſſigns, the Summ of fifty Pounds Principal, and thirty

thirty Shillings, half a Years Intereſt thereof, on the firſt Day of *November* next enſuing the Date hereof for Redemption of the ſaid Bargained Premiſes; Then this preſent Bill of Sale ſhall be void, or elſe to remain in full force: *In Witneſs* whereof I have hereunto ſet my Hand and Seal the firſt Day of *May*, *Anno Dom.* 1697, and in the Ninth Year of the Reign of our Sovereign Lord *William* the Third, King of *England*, &c.

Sealed and Delivered, &c. *Lazarus Lackcaſh.*
A. B.
C. D.

§. 9. *The Form of a Chartar-party of Affraightment.*

What a Charter-party is you will find in the Dictionary and elſewhere, which will alſo appear very plain by this following Form, to be given to the Merchant by the Maſter, and the like by the Maſter to the Merchant mutually ſigned, *&c.*

THIS Charter-party of Affraightment indented, made and agreed upon the Twenty firſt Day of *April*, *Anno Dom.* 1697, and in the Ninth Year of the Reign of our Sovereign Lord *William* the Third, King of *England*, &c. Between *Herbert Haulaway* of *Deptford* Marriner, Maſter (under God) of the good Ship or Veſſel called the *Fortunate*, of the Burthen of Three hundred Tunns or thereabouts; now riding at Anchor in the Port of *Plymouth*, of the one part; and *Giles Growrich* of *Portſmouth* in the County of Merchant, of the other part, Witneſſeth, That the ſaid Maſter hath granted and lett to Freight the ſaid Veſſel unto the ſaid Merchant; and the ſaid Merchant hath hired the ſaid Veſſel for a Voyage with her to be made in manner and form following; That is to ſay, The ſaid *Herbert Haulaway* for himſelf, his Executors and Adminiſtrators doth Covenant, Promiſe and Grant to and with the ſaid *Giles Growrich*, his Executors and Adminiſtrators by theſe Preſents, That the ſaid Veſſel with the firſt Wind that God ſhall ſend after the Twentieth day of *May* next enſuing the Date above, ſhall depart from the ſaid Port of *Plymouth* with ſuch lawfull Goods and Merchandizes as it ſhall pleaſe the ſaid *Giles Growrich* or his Aſſigns in the mean time to Lade on Board her: And that it ſhall be lawfull to and for the ſaid *Giles Growrich*, his Factors and Aſſigns in the mean time to Lade aboard her all ſuch lawfull Goods and Merchandizes as he or they

they ſhall think fit, which ſhe may reaſonably carry over and above her Victuals, Tackle and Apparel. And that the ſaid Veſſel ſhall by God's Grace, directly, as Wind and Weather will ſerve, Sail unto the Port or Harbour of *Alleppo* in *Turky*, and there deliver unto the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns, all ſuch Goods and Merchandizes as ſhall be laden on Board of her by the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns dry and well conditioned, danger of the Sea, Fire, Enemies, and Embargo of Princes only excepted. And after her clearing and right diſcharge of ſuch Goods as ſhe ſhall receive into her within the ſaid Port of *Plymouth*, ſhall receive into in the ſaid Port of *Alleppo* her full Lading in ſuch lawfull Goods and Merchandizes as it ſhall pleaſe the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns, to lade or cauſe to be laden aboard her; and after ſuch her full Lading at the Port of *Alleppo* aforeſaid, ſhall directly ſail as Wind and Weather will permit to the ſaid Port or Harbour of *Plymouth* aforeſaid, and there deliver to the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns within the ſpace of ten working Days hereafter mentioned, the ſaid Goods and Merchandizes ſo received into her at *Alleppo* aforeſaid, dry and well conditioned, and make a right Diſcharge and End of the ſaid Voyage, the danger of the Sea, Fire, Enemies, and Embargo of Princes and Rulers only excepted: And that the ſaid Veſſel, after her arrival at *Alleppo* aforeſaid, ſhall ſtay at Anchor there for her Unlading and Relading ſixty working Days, and ſhall ſtay at an Anchor at the ſaid Port of *Plymouth* after her return again and arrival there from *Alleppo* aforeſaid, Ten working-days for the delivery of the ſaid Goods ſo to be laden aboard of her at *Alleppo* aforeſaid. And the ſaid *Giles Growrich*, for himſelf, his Executors, and Adminiſtrators, doth farther Covenant, Promiſe and Grant to and with the ſaid *Herbert Haulaway*, his Executors and Adminiſtrators, and alſo warrant by theſe preſents, that the ſaid Veſſel at her departure from the ſaid Port of *Plymouth* and during the ſaid Voyage, ſhall be ſtrong and ſtaunch, and ſufficiently Victualled, Tackled, and Apparrelled, and furniſhed with Maſts, Sails, Sail-Yards, Anchors, Cables, Ropes, Cords, Tackle, Apparrel, Boat, and all other Furniture whatſoever requiſite or needfull for ſuch a Veſſel for ſuch a Voyage. And the ſaid *Giles Growrich*, for himſelf, his Executors and Adminiſtrators, doth Covenant and Grant to and with the ſaid *Herbert Haulaway*, his Executors and Adminiſtrators, not only to Unlade and Relade

and

and diſpatch away the ſaid Veſſel at and from *Alleppo* and *Plymouth* aforeſaid, within the time and times before therefore limited and agreed upon, but alſo for the Freight or Hire of the ſaid Ship or Veſſel for all the ſaid Voyage, *viz.* from *Plymouth* to *Alleppo* and from thence back to *Plymouth*, well and truly pay or cauſe to be paid unto the ſaid *Herbert Haulaway*, his Executors, Adminiſtrators or Aſſigns, the Summ of Three hundred and fifty Pounds of lawfull *Engliſh* Coin in manner and form following, that is to ſay, The Summ of 58 pounds at the ſaid Port of *Alleppo* within twenty days next after the arrival of the ſaid Ship or Veſſel and delivery of the ſaid Goods well conditioned at *Alleppo* aforeſaid, and two hundred ninety and two pound more, reſidue of the ſaid Three hundred and fifty pounds at *Plymouth* aforeſaid, within ten working days after the return again and arrival of the ſaid Ship or Veſſel from *Alleppo* to *Plymouth*, and the Delivery of the ſaid Goods ſo to be received into her at *Alleppo* aforeſaid, unto the ſaid *G. Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns at *Plymouth* aforeſaid, well conditioned as aforeſaid; together with Primage and Average, according to the Uſe and Cuſtom of Merchants. And the ſaid *Giles Growrich*, for himſelf, his Heirs, Executors and Adminiſtrators doth Covenant and Grant to and with the ſaid *H. Haulaway*, his Executors and Adminiſtrators by theſe preſents, that in caſe the ſaid Veſſel ſhall through the default of the ſaid *G. Growrich*, his Factors or Aſſigns, ſtay for her Unlading or Relading at *Alleppo* aforeſaid, or for her Lading at *Plymouth* aforeſaid, before her departure from thence; or for her Unlading at *Plymouth* aforeſaid, after her return and arrival from *Alleppo* aforeſaid to *Plymouth* aforeſaid, after the ſeveral days therefore abovementioned, That then the ſaid *G. Growrich*, his Executors or Adminiſtrators ſhall and will pay or cauſe to be paid unto the ſaid *H. Haulaway*, his Executors or Adminiſtrators the Summ of Thirty Shillings Sterling for every working-day that the ſaid Veſſel ſhall either ſtay at *Alleppo* aforeſaid for her Unlading and Relading, or at *Plymouth* aforeſaid, for her Lading or Unlading after the Days above limited and agreed upon; and to the performance of all and ſingular the Covenants and Agreements abovementioned, which on the part and behalf of the ſaid *Herbert Haulaway*, his Executors or Adminiſtrators are to be performed in all things as aboveſaid, the ſaid *H. Haulaway* bindeth himſelf, his Executors and Adminiſtrators, and eſpecially the Ship or Veſſel aforeſaid, with her Freight, unto the ſaid *G. Growrich*, his Executors and Adminiſtrators in the Summ

or

or Penalty of 400*l.* of lawfull Money of *England* well and truly to be paid by theſe Preſents; and likewiſe for the performance of all and ſingular the Covenants and Agreements abovementioned, which on the part and behalf of the ſaid *G. Growrich.* his Executors and Adminiſtrators are and ought to be performed in all things as are above-recited, the ſaid *G. Growrich* bindeth himſelf, his Executors, Adminiſtrators, and Goods, unto the ſaid *H. Haulaway*, his Executors and Adminiſtrators in the Summ or Penalty of 400*l.* of like Money of *England*, well and truly to be paid by theſe Preſents. *In Witneſs* whereof, the Parties firſt above-named to theſe Charter Parties Indented, Interchangably have ſet their Hands and Seals the Day and Year firſt above-written.

Sealed and Delivered, &c. *Herbert Haulaway.*

§. 10. *The Form of a General Releaſe.*

KNow all Men by theſe Preſents, That I *Henry Haveall* of *London*, Merchant, have Remiſed, Releaſed, and for ever Quit-claimed, and by theſe Preſents do for me my Heirs, Executors and Adminiſtrators, Remiſe, Releaſe, and for ever Quit-claim unto *Patrick Peaceable* Citizen and Larimer of *London*, his Heirs, Executors and Adminiſtrators, all and all manner of Actions, Cauſe and Cauſes of Actions, Suits, Bills, Bonds, Writings, Obligations, Debts, Dues, Duties, Accompts, Summ and Summs of Money, Judgments, Executions, Extents, Quarrels, Controverſies, Treſpaſſes, Damages and Demands whatſoever, both in Law and Equity, or otherwiſe howſoever, which againſt the ſaid *Patrick Peaceable* I ever had, now have, and which I, my Heirs, Executors and Adminiſtrators ſhall or may have, claim, challenge, or demand, for or by reaſon or means of any Matter, Cauſe or Thing, from the World to the day of the Date of theſe Preſents: In Witneſs whereof I have hereunto ſet my Hand and Seal the Tenth Day of *April*, *Anno Dom.* 1697.

Sealed and Delivered in the preſence of.
Simon Saywell,
Lawr. Lackwitt.

Hen. Haveall.

§. 11. *The Form of an Invoyce or Factory.*

INvoyce (or Factory) of Six Hogſheads of Tobacco, 12 Barrels of Orchall, 5 Bags of Shomack, 3 Cheſts of Sugar, and 3 Bales of Woollen-Cloth Shipt on Board the *Streights-Merchant*, *Theoph. Through-*

paſte, Maſter, for the proper Accompt and Riſque of *Marmaduke Maridani*, Merchant in *Leghorn*, and conſigned to himſelf, being mark'd and number'd as *per* Margent; Contents, Coſts and Charges as follows.

Beſt bright Tobacco 6 Hogſheads, *viz.*

	C. Q. lb.		C. Q. lb.		C. Q. lb.		C. Q. lb.
N°. 1 *qt.*	2 : 3 : 07, Tare	0 : 2 : 14	N°. 4	4 : 1 : 27 Tare		0 : 3 : 04	
2	3 : 1 : 10, Tare	0 : 2 : 20	5	2 : 2 : 20 Tare		0 : 2 : 10	
3	3 : 3 : 00, Tare	0 : 2 : 00	6	5 : 2 : 10 Tare		0 : 3 : 12	
Groſs	9 : 3 : 17	1 : 3 : 06 Tare		12 : 3 : 01 Groſs		2 : 0 : 26 Tare.	
Groſs	12 : 3 : 01					1 : 3 : 06 Tare.	
	22 : 2 : 18 Total Groſs.					4 : 0 : 04 Tot. Tare.	
	4 : 0 : 04 Tare						
	18 : 2 : 14 Suttle, 2086 lb.						
	Trett .. 80 lb.						
	Nett 2006 lb. at 8½ *d. per* pound,					*l. s. d.* 62 : 13 : 09	

Orchall, *viz.*

N°. 7 to 18 *qt.* 12 Barrels, at 14 *s. per* Barrel——— 8 : 08 : 00

Shomack 5 Baggs, *viz.*

	C. Q. lb.		C. Q. lb.
N°. 19 *qt.* Nett	2 : 2 : 07	N°. 22	3 : 0 : 06
20	2 : 0 : 24	23	2 : 1 : 20
21	1 : 3 : 17		
	6 : 2 : 20		5 : 1 : 26
	5 : 1 : 26		

In all 12 : 0 : 18 at 12 *s. per* Hundred——— 7 : 05 : 11

Sugar Double Refin'd, 3 Cheſts, *viz.*

N°. 24 381 *l.*
25 505 *l.*
26 326 *l.*

1212 *l.* Nett, at 18 *d. per* lb.——————— 90 : 18 : 00

Cloth 3 Bales, *viz.*

N°. 27, 28, 29 *qt.* each (with Wrappers) 10 ſhort Clothes, at 12 *l. per* Cloth——— 360 : 00 : 00

l. s. d.

——————— 529 : 05 : 08

Charges.

To Cuſtom of all———	053 : 19 : 09½
To Coſt of 3 Cheſts for the Sugar———	000 : 18 : 00
Ditto of 3 Wrappers for the Cloth———	000 : 07 : 00
Brokage at ½ *per Cent.*———	002 : 12 : 10¾
Storage———	001 : 00 : 00
Cartage and Porterage———	000 : 10 : 06
	588 : 13 : 10
To my Commiſſion at 2½ *per Cent.*———	014 : 14 : 04

Laus Deo, London, May 4, 1697; Errors excepted *per Tim. Truſty.*

§. 12. *The*

§. 12. *The Form of a Letter of Credit.*

The Forms of Letters of Credit may be various and yet valid and authentick, one of which may ſerve if it be of this Nature, to be altered according to the Circumſtances of the Correſpondents. *Vide* Chap. 12. (Example.)

SIR,

THE laſt of Yours which I receiv'd was dated the 24 *ultimo*, by which I underſtand you have mine of the 20th *Ditto*, and I hope by this time you have accompliſhed the Affair therein mentioned; as to the purport of yours, aſſure your ſelf, it ſhall be punctually obſerved, of which more *per* next; in the *interim* I intreat you to furniſh the Bearer hereof, Mr. *Matthew Meanwell*, with the Summ of Fifty ſix Pounds Sterling at ſuch time as he ſhall require the ſame, and place it to my Accompt, for which this my Letter of Credit, together with his Receipt, ſhall be your ſufficient Voucher and Warrant, giving (upon payment) a Line or two of Advice to

To Mr. Nicholas Neverfail
Merchant in Hull.
London, May 1. 1697.

Your real Friend and Servant,
Samuel Standfaſt.

§. 13. *The Form of a Letter of Licenſe.*

TO all People to whom this preſent Writing ſhall come, We whoſe Names are underwritten, Creditors of *Oliver Overſhot* of *London*, Haberdaſher, ſend Greeting: *Whereas* the ſaid *Oliver Overſhot* at this preſent time doth ſtand Indebted and juſtly oweth unto us the ſaid Creditors of him the ſaid *Oliver Overſhot*, divers and ſundry Summs of Money, which by reaſon of many Debts (and ſome of them very great) that are likewiſe juſtly owing to him the ſaid *Oliver Overſhot*, and cannot be recovered without ſome time of Reſpite, he is very much diſabled at preſent to make payment unto us his ſaid Creditors our whole and juſt Debt, as he ſeemeth willing and deſirous: In conſideration whereof he inſtantly deſireth us, That we the ſaid Creditors, and every of us, would be pleaſed to give and grant unto him the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators or Aſſigns, ſuch Liberty and reſpite of Time for the payment and ſatisfaction of our ſeveral Debts as he thinketh reaſonable for the obtain-

ing, getting, and recovering of his ſaid Debts; that is to ſay, That we and every of us would be content to take and accept of our whole Debts in the ſpace of two full Years next after the Date hereof, to be divided into two equal parts to be paid at two ſeveral Payments in manner and form following, *viz.* The firſt Payment thereof to be made on the firſt day of *May* next enſuing the Date hereof, which ſhall be in the Year of our Lord 1698; and the other Payment or Moiety, the reſidue thereof, to be paid on the firſt day of *May* which ſhall be in the Year of our Lord 1699, in full payment and ſatisfaction of the ſaid ſeveral Debts. And for the more full performance of the ſaid ſeveral Payments in ſuch manner and form as is above limited and declared, according to the true meaning of theſe Preſents, he the ſaid *Oliver Overſhot* ſhall and will at or before the Tenth Day of this inſtant *May* become bound unto us the ſaid Creditors reſpectively by one Obligation in due form of Law to be made, including all and every the Payments in ſuch ſort as is above expreſſed, and the Penalty of every Obligation to be double the whole Summ, included in the Condition of the ſame, to be delivered to us and every of us, our Executors or Aſſigns, at or before the ſaid Tenth Day of *May* next enſuing the Date hereof: *Know* ye therefore, that we the ſaid Creditors whoſe Names are ſubſcribed, and every of us for his own part, and for his Executors, Adminiſtrators and Aſſigns, for the Conſideration abovementioned, do by theſe Preſents willingly conſent, promiſe, covenant and agree to and with the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators and Aſſigns, by theſe Preſents, that we the ſaid Creditors, and every of us, our Executors, Adminiſtrators and Aſſigns, ſhall and will accept of the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators and Aſſigns, all and every of the ſaid Debts and Summs of Money by the ſaid *Oliver Overſhot* unto us and every of us owing and paying upon ſuch Obligations, Aſſurance and Aſſurances as aforeſaid, to be paid in ſuch manner and at ſuch Days and Times as is above-limited and required. *And farther*, if we the ſaid Creditors and every of us, our and every of our Executors, Adminiſtrators and Aſſigns reſpectively, upon the delivery of the ſaid Obligation to us and to every of us, and every of our Executors, Adminiſtrators and Aſſigns ſhall and will at the Charge of the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators and Aſſigns, Seal, Subſcribe and Deliver in due form of Law unto the ſaid *Oliver Overſhot*, our ſufficient General Releaſe to bear Date and Limitation before the Day of the Date of the ſaid new Obligation

Obligation to be made for the ſame Debt. *In Witneſs* whereof we the ſaid Creditors have hereunto ſet our Hands and Seals the Second Day of *May*, in the Ninth Year of the Reign of our Sovereign Lord *William* the Third, King of *England*, &c. and in the Year of our Lord God, 1697

(*See* [Letter of Licenſe] *in the Dictionary*.)

Patrick Peaceable, ⊙
Hen. Hopewell, ⊙
Tho. Truelove, ⊙

§. 14. *The Form of a Note for paying Money.*

I Promiſe to pay unto Mr. *Ferdinando Freeman* or Order, on Demand, Six hundred eighty five Pounds, *London May* 6, 1697.

685 *l.*——

Chriſtopher Covetmore.

(*Vid.* Chap. 11. Sect. 1. Article 40.)

§. 15. *The Form of a Policy or Inſurance of Goods in a Ship.*

IN the Name of God, Amen; *William Wiſe* of *London*, Merchant, as well in his own Name as for and in the Name and Names of all and every other Perſon or Perſons to whom the ſame doth, may or ſhall appertain in part or in all, doth make Aſſurance, and cauſeth himſelf, and them, and every of them to be Inſured, Loſt or not Loſt, from *London* to *Cales* upon any kind of Goods and Merchandizes whatſoever, loaden or to be loaden on Board the good Ship called the *Antelope*, Burthen three hundred Tuns, or thereabout, whereof is Maſter under God for this preſent Voyage *Stephen Steerwell* Marriner, or whoever elſe ſhall go for Maſter in the ſaid Ship, or by whatſoever Name or Names the ſame Ship or Maſter thereof is or ſhall be named or called, beginning the Adventure upon the ſaid Goods and Merchandizes from and immediately following the Loading thereof aboard the ſaid Ship at *London*, and ſo ſhall continue and endure untill the ſaid Ship with the ſaid Goods and Merchandizes whatſoever ſhall be arrived at *Cales*, and the ſame there ſafely Landed. And it ſhall be lawfull for the ſaid Ship in this Voyage to ſtop and ſtay at any Port and Place whatſoever without prejudice to this Inſurance. And the ſaid Goods and Merchandizes by agreement are and ſhall be valued at the Summ of Four hundred pounds Sterling, without farther account to be given by the Aſſureds for

for the ſame. Touching the Adventures and Perils which we the Aſſurors are contented to bear, and do take upon us in this Voyage, they are of the Seas, Men of War, Fire, Enemies, Pyrats, Rovers, Thieves, Jettizens, Letters of Mart, and Counter-Mart, Surprizals, Takings at Sea, Arreſts, Reſtraints and Detainments of all Kings, Princes and People, of what Nation, Condition or Quality ſoever, Baratry of the Maſter or Marriners, and all others, Perils, Loſſes and Misfortunes that are or ſhall come to the Hurt, Detriment or Damage of the ſaid Goods and Merchandizes, or any part thereof. And in caſe of any Loſs or Misfortunes it ſhall be lawfull for the Aſſureds, their Factors, Servants or Aſſigns to Sue, Labour and Travel for, in, and about the Defence, Safeguard, and Recovery of the ſaid Goods and Merchandizes, or any part thereof without prejudice to this Inſurance, to the Charges whereof we the Aſſurors will contribute each and according to the Rate and Quantity of his Summ herein aſſured. And it is agreed by us the Inſurors, that this Writing or Policy of Aſſurance ſhall be of as much force and effect as the ſureſt Writing or Policy of Aſſurance heretofore made in *Lumbard-ſtreet* or elſewhere made in *London*. And ſo we the Aſſurors are contented, and do hereby promiſe and bind our ſelves, each one for his own part, our Heirs, Executors and Goods to the Aſſureds, their Executors, Adminiſtrators and Aſſigns for the true performance of the Premiſes, confeſſing our ſelves paid the Conſideration due unto us for this Aſſurance by the ſaid *William Wiſe*, after the Rate of eight pounds Sterling *per Cent.* warranted to depart with Convoy.

In Witneſs whereof we the Aſſurors have Subſcribed our Names and Summs Inſured in *London*, Dated the firſt day of *May* 1697.

Memorandum, The Aſſurors do hereby Covenant, Promiſe and Oblige themſelves, their Heirs, Executors and Goods in caſe of Loſs happening (which God forbid) to ſatisfy and pay their ſeveral Summs of Money herein Aſſured upon the Abatement only of Ten Pounds *per Cent.* and no more. Provided always that they pay their reſpective Summs of Money by them aſſured according to Subſcription, within one Month after notice thereof; otherwiſe no Abatement whatſoever to be made, but to pay their full Summs according to each Man's Subſcription; any Uſe or Cuſtom to the contrary notwithſtanding. Written the Day aboveſaid.

I (*A. B.*) am contented with this Inſurance for One hundred and fifty Pounds, Witneſs my Hand, *London, Anno Dom.* 1697. ——— } 150

A. B.

I (*C. D.*) am contented with this Inſurance for One hundred Pounds; Witneſs my Hand, *London, Anno Dom.* 1697. ——— } 100

C. D.

I (*E. F.*) am contented with this Inſurance for One hundred and fifty Pounds; Witneſs my Hand, *London, Anno Dom.* 1697. ——— } 150

E. F.

§. 16. *Proteſt of a Foreign Bill.*

KNOW all Perſons whom this preſent Writing may concern, That the Second Day of *April*, 1697, at the Requeſt of Mr. *Richard Rich* of *London*, Merchant, I *Iſaac Sharp* Publick Notary, ſworn and admitted by Authority of his Sacred Majeſty *W.* 3. King of *England*, &c. did go to the Dwelling-houſe of Mr. *Paul Puttoff*, upon whom the above-named Bill of Exchange is drawn, and ſhewed the Original unto the ſaid Mr. *Paul Puttoff*, demanding his Acceptance of the ſame, who anſwered me, he would not accept the ſaid Bill for Reaſons beſt known to himſelf, of which ſhould inform the Drawer Mr. *Frederick Fairfax*. Wherefore I the ſaid Notary did Proteſt, and by theſe Preſents do Proteſt as well againſt the ſaid *Fred. Fairfax* as againſt the ſaid *Paul Puttoff*, as alſo againſt all other perſons Endorſers or others therein concerned, for all Changes, Rechanges, Damages and Intereſt whatſoever. In preſence of *A. B* and *C. D.* called for Witneſſes to this preſent Act done in my Office in *London* the Day and Year aboveſaid.

Iſ. Sharp Notary Publick.

Note, That this Proteſt is always incerted or written under a Copy of the Bill. *Vide* Chap. 11 Sect. 1.

§. 17. *The*

§. 17. *The Forms of Receipts.*

If the Receipt be given in a Book you need not mention the Mán's Name of whom you receive, becauſe that is always imply'd, the Book being his: Thus (if the Receipt be for Goods formerly ſold)

	l.	*s.*	*d.*
REceiv'd *April* the 1ſt 1697, Forty eight Pounds Seven Shillings and Four Pence, in full payment	48	07	04

Daniel Dunwell.

If a Receipt be given on ſome other Accompt, to one that keeps no Book for Receipts, by one for Accompt of another, it will run thus;

March 28, 1697.

	l.	*s.*	*d.*
REceiv'd of Mr. *Andrew Allpay*, by Order and for Accompt of Mr. *Humphrey Hoardnone*, One hundred Pound; I ſay receiv'd as aforeſaid	100	00	00

per Tho. Truſty.

A Rent-gatherer's Receipt.

	l.	*s.*	*d.*
REceiv'd *April* 6°. 97. of Mr. *Lewis Livewell* Twenty five Pounds in full for half a Years Rent due at *Chriſtmas* day laſt, out of which deducted for Taxes Five pounds and for Repairs Two pounds: I ſay receiv'd for the Uſe of *Rob. Richer*, Eſquire, by virtue of his Letter of Attorney	25	00	00

By me *Chriſt. Countwell.*

A Receipt on the backſide of a Bill of Exchange.

Admit *Tertullian Trevardo* receives in *Leghorn* the Contents of the Bill mentioned in the 4th Sect. of this Chapter, Mr. *Peter Peterani* firſt writes his Name on the backſide, which is his Order, leaving

leaving room to write a Receipt over it, then the Receipt on the backſide ſtands thus;

June 24th 1697, Receiv'd the full Contents within mentioned, being One thouſand pieces of Eight——— } Ps. 8. 1000

Peter Peterani.

Witneſs *Tertul. Trevardo.*

§. 18. *The Form of the Condition of a Broker's Bond to the Lord Mayor and Court of Aldermen of* London *according to* 8 *and* 9 W. 3.

THE Condition of this Obligation is ſuch, That whereas *A.B.* is Sworn and Admitted a Broker purſuant to a Statute in that behalf lately made. *Now* therefore if the ſaid *A. B.* do and ſhall well and truly Uſe, Execute and Perform the Office and Employment of a Broker between Party and Party without Fraud, Covin, or any corrupt or Crafty Devices, according to the Purport, true Intent and Meaning of the Statute in that Caſe lately made and provided; then this Obligation to be void, or elſe to remain in full Force and Virtue.

§. 19. *The Form of an Umpirage.*

The Umpire choſen as mentioned in Sect. the 1ſt of this Chapter making his Umpirage, it will ſtand thus.

TO all People to whom this preſent Writing ſhall come, I *Ferdinando Finiſhall* of *London*, Eſquire, Umpire indifferently choſen by *Benjamin Bidfare* and *William Wellmeant* of *London*, Merchants, having deliberately heard and underſtood the Griefs, Allegations and Proofs of both the ſaid Parties, and willingly, as much as in me lieth, to ſet the ſaid Parties at Unity and good Accord, do by theſe preſents Arbitrate, Award, Order, Deem, Decree and Judge that the ſaid *Benjamin Bidfare*, his Executors and Aſſigns ſhall well and truly pay or cauſe to be paid unto the ſaid *William Wellmeant*, his Executors, Adminiſtrators or Aſſigns the full Summ of Thirty five pounds of lawfull Money of *England*, on the Twenty

ninth day of *September* 1697; and that upon payment thereof the ſaid *B. Bidfare* and *W. Wellmeant* ſhall Seal, Subſcribe, and as their ſeveral Acts and Deeds deliver each to the other a General Releaſe in Writing of all Matters, Actions, Suits, Cauſes of Actions, Bonds, Bills, Covenants, Controverſies and Demands whatſoever, which either of them hath, may, might, or in any wiſe ought to have of and againſt each the other of them by reaſon aforeſaid, or means of any Matter, Cauſe or Thing whatſoever, from the beginning of the World to the firſt day of *May* now laſt paſt, and in the Ninth Year of the Reign of our Sovereign Lord *W.* the Third, King of *England*, &c. *In Witneſs* whereof I have hereunto ſet my Hand and Seal the 12th day of *June*, in the Year of our Lord God 1697,

Sealed and Delivered in the preſence of
Bryan Butler,
Char. Cook.

Ferdinando Finiſhall ⊙

FINIS.

ERRATA.

PAg. 117 line *ultimo*, for *where* read *there*. p. 218 l. 8. for 12 r. 22.

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